



Accelerating Learning

Achieving a 5.5 Percentile Point Gain in 16 Weeks

ROCKETSHIP FAST FACTS

- Network of free, public K–5 college prep elementary charter schools
- Opened the nation's first hybrid school in 2007
- 500 Students per school
- ~90% Eligible for free or reduced price lunch
- ~75% English Language Learners

DREAMBOX IMPLEMENTATION

- Deployed since 2010
- 3 Rocketship Education schools
- Daily individualized instruction as part of the Rocketship Learning Lab

FUNDING SOURCE

School Operating Budgets

ABOUT DREAMBOX LEARNING

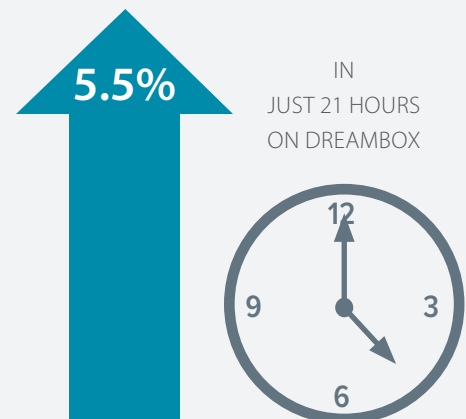
DreamBox Learning's Intelligent Adaptive Learning™ program accelerates student learning by ensuring every student works continually in their optimal learning zone and helps all students achieve math proficiency.

BACKGROUND

Rocketship Education, a national, non-profit elementary charter school network, is on the cutting edge of school innovation with a hybrid school model and an operational approach that combines classroom and online learning to create high-performing low income elementary schools. In the 2010–11 school year, three Rocketship schools served more than 1,200 students—over three-quarters of whom qualify for free or reduced price meals and are learning English as a second language.

Rocketship schools couple an extended day and rich classroom experiences with a “Learning Lab” where every student receives two hours of daily individualized instruction. The result is an environment where students learn many of their foundational math skills through DreamBox Learning's intelligent adaptive software, enabling classroom teachers to focus more time on critical-thinking instruction. It's an approach that moves beyond merely integrating technology into the curriculum to actually transforming the educational structure of schools.

Students Increase in Rank



→ CHALLENGE:

Increasing school productivity despite shrinking dollars

As the co-founder and CEO of Rocketship Education, John Danner says Rocketship was built on the idea that “there would be less, not more, money in public education over the next 20 years, yet there is a demonstrable need to vastly improve results. We set out to accomplish two things that were thought to be mutually exclusive—make schools more efficient and

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— John Danner, CEO, Rocketship Education

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Rocketship Education

productive.” To do this Rocketship needed to accelerate student progress and learning, particularly for students performing below grade level. “The only way students below grade level can make up time is by accelerating progress,” says Danner. “Unfortunately, there is very little chance that they’ll receive instruction that is at their ‘just right’ developmental level in a traditional classroom.”

Initially Rocketship used tutoring as the core of its individualized program because most of the instructional software available was what Danner calls “electronic babysitters”. He says, “Kids were just parked in front of computers without real objectives. What we needed was an impactful individualized instructional program that enabled students to learn a similar amount online to what they could learn in the classroom. When we found DreamBox we became true believers in the power of online learning.”

Charlie Bufalino, Rocketship’s Online Learning Specialist, evaluates various online programs that Rocketship uses in the Learning Lab. “DreamBox establishes foundational math skills,” he says. “There are a lot of programs that are good at generating practice problems, and that can be effective but

we don’t consider that a teaching tool. What separates DreamBox is that it’s able to take the constructive strategies that a good teacher would normally employ in the classroom and use them online.”

→ SOLUTION:

Daily online individualized instruction

As part of its innovative 21st century education model, Rocketship leverages DreamBox technology to provide each student with daily individualized instruction at his or her “just right” level. By combining DreamBox’s adaptive online program with outstanding classroom instruction, Rocketship has accelerated student learning and providing the foundation for academic success.

An extended-day block schedule means students spend 200 minutes daily in an English, language arts, and social studies block; 100 minutes daily in a math and science block; and 120 minutes in the Learning Lab where

students learn much of their basic skills through intelligent adaptive software. Carefully selected teams of tutors, lab monitors, and program providers from community-based organizations take on a variety of different roles in the school to address student needs and enable teachers’ new roles. This engaging method for addressing higher order thinking skills is helping students develop basic foundational methods and increase conceptual understanding in a truly cost-effective way.

→ RESULTS:

Accelerated student progress and learning per hour engaged

Bufalino says what Rocketship cares about above all else is what’s most effective for students. “What DreamBox demonstrated from the outset and what separated it from others was its adaptivity,” he notes “It’s not only the way DreamBox gathers information, it’s the way that information is used to adapt learning paths. DreamBox makes





adjustments on a problem by problem basis. That means DreamBox can help kids optimize strategies so if numbers are being built in an inefficient way, they're prompted to do it again more efficiently. That helps students develop the strategies they'll need when faced with more difficult tasks later on."

"The Lab needs to complement good teaching, and other providers either didn't or couldn't do that," continues Bufalino. "Once you acknowledge that students have individualized needs and that instruction needs to be differentiated in order for them to succeed, the ability for technology like DreamBox to adapt becomes even more critical. Gaps in knowledge vary from student to student and utilizing DreamBox enables teachers to be more effective in the classroom."

From an engagement perspective, Bufalino says DreamBox offers more than just rewards — the math

instruction itself is engaging. "Other programs tend to focus only on the rewards, and it creates a mindset where students feel they'll be rewarded with fun stuff once the boring math stuff is complete," he says. "The DreamBox experience is far more interwoven and really speaks to early elementary students." Danner agrees. "The DreamBox design doesn't feel like math drill practice so kids think of it as playing as opposed to practicing — pretty genius." In fact, Danner says, "Learning Lab is the favorite time of the school day for many Rocketship students. For students who are at risk, it is the one time of the day when they are not frustrated. For our advanced students, it is the one time of the day when they are not bored and get to fly."

That appears to be true for the large English Language Learner (ELL) population that Rocketship serves as well. "DreamBox works amazingly well for Rocketship where 75 percent of

our students are ELLs," Danner says. "Because DreamBox uses many on-screen visual cues and no text prompts, students who have difficulty with oral instructions can still figure out and learn from the activity. Language is a barrier which is really important to overcome when you consider the demographics of the populations we're serving. But while DreamBox has been very successful with our ELLs, it's really because it's successful with all of our students. It's just better teaching."

Despite the kids' engagement in the online lessons, no one is claiming that time in front of the computer is directly responsible for the extraordinary performance of Rocketship students. Rather, the online work is essential to the long-term vision for the school's instructional model — and for Rocketship's growth trajectory. "We don't think that technology can teach higher order or critical thinking skills but what it can do really well is basic skills acquisition and practice. DreamBox fills in foundational gaps for our students so teachers can work on the higher order thinking and social emotional skills," says Danner. Moving forward: Cost effectively eliminating the achievement gap "When people think of the Rocketship model, they find two things most interesting," says Danner. "First is

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the fact that over the last five years, 90 percent of the students that we had in the bottom two categories in California (far below basic and below basic) have moved up to basic or above within the first year of getting to Rocketship. Secondly, there are tremendous cost savings associated with the Learning Lab — about half a million dollars a year — because students are coached by community members rather than teachers, allowing us to run our schools with fewer teachers. That’s money that can be reinvested on the classroom side to make it better.”

The facts underscore Danner’s premise. Today, Rocketship’s schools are among the very highest-performing among high-poverty schools in California — so much so that their results even exceeded the highest income school district in California in 2009–10. Danner says, “Racial and

socio-economic disparity of educational outcomes and opportunities remain our country’s greatest injustice. At Rocketship we are striving to eliminate the achievement gap in our lifetimes, so that no student’s life is subject to the ‘destiny of demographics.’” As part of this mission, Rocketship plans bring the model of coupling outstanding classroom instruction with the most effective adaptive instructional technology to the 50 largest cities across the United States in the next 15 years. Danner is convinced of DreamBox’s role in making Rocketship’s vision a reality. “DreamBox is the most effective K–5 math curriculum we have,” he says.



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