prodigy

How Prodigy is boosting math engagement levels across California

www.prodigygame.com

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The challenge

Across the nation, keeping students engaged with math is a growing concern. And this weight doesn't just rest on students' shoulders either.

For example, a 2009 Gallup study found a 1% increase in student engagement resulted in **an 8% increase in mathematics achievement. Studies like these make it clear: a teacher's own level of engagement directly affects that of their students.**

From students' general disinterest and math anxiety to teachers' struggles to make math engaging, school leaders are seeking solutions to remedy a disengaged generation.

Educators who feel they've tried everything may be wondering if there is a solution that can:

- **Effectively engage students** in 1st to 8th grade?
- **Encourage math practice** in and out of school?
- **Boost learning outcomes** for students with a wide range of proficiency levels?
- **Succeed on a limited budget** or, better yet, be zero cost?

The solution

947 school districts in California currently use Prodigy — a no-cost, adaptive math platform loved by more than 50 million students around the world.

Fully aligned to the California Common Core curriculum, teachers help students build prerequisite skills and address learning gaps by assigning in-game content.

It runs quickly and easily on all internet browsers and devices, so teachers are able to get started in less than five minutes.

We're using Prodigy school-wide to create a culture that believes it's cool to love math. All teachers at our school include Prodigy in their classrooms for a minimum of 40 minutes per week. We have had some students work at an advanced level, and then in class, when a lesson was taught, they know how to do it and say, "I learned it in Prodigy."

Mariel Rodriguez
K-5 teacher, Los Angeles Unified School District

How it works

In an effort to improve understanding and boost math results, teachers use Prodigy to:

- **Pinpoint students' problem areas** with adaptive learning
- **Create plans and assignments** for the whole class or individual students
- **Instantly obtain live data and reports** on students' usage and progress

However, the fun **video game environment that greatly appeals to students is what engages entire classrooms** with math curricula.

Here's some context

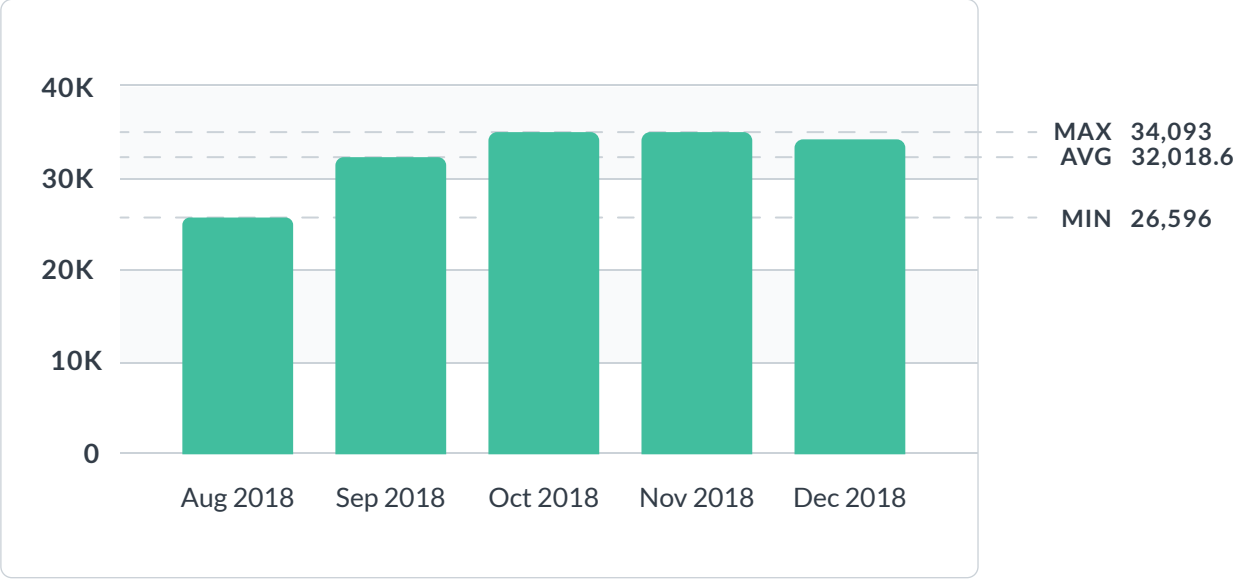
From August 2018 to March 2019, students engaged with Prodigy for the equivalent of 971.95 years. Students in California accounted for 218.19 of those years.

So, let's take a look at just how engaged this West Coast state is...

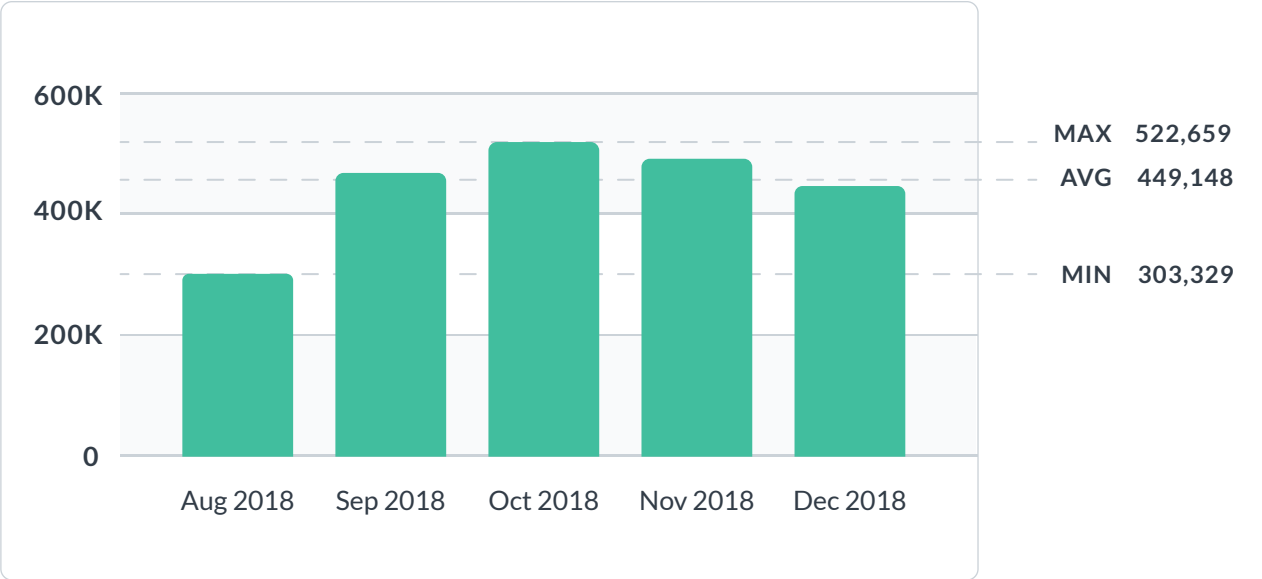
Results: California engagement

Aug. 1 to Dec. 31, 2018

Of the 333,000 distinct teachers using Prodigy in the United States, an average of 32,000 of them are in California. Between August and December, we saw a 26.4% increase in the number of teachers enrolled in Prodigy.



Of the seven million students actively using Prodigy, an average of 449,100 of them are in California. Similarly, the number of active students using Prodigy every month increased by 50.4%.



Prodigy effectively engages students

Nationwide, students collectively answered 1.42 billion math problems. In California, students answered 13% — 180.7 million — of those questions.

DATE	QUESTIONS ANSWERED
Aug 2018	15,166,287
Sep 2018	39,074,528
Oct 2018	52,098,607
Nov 2018	40,265,839
Dec 2018	34,096,789
Total	**180,702,050**

Over the five-month period, districts saw a 124.8% rise in students' daily questions answered. Notably, the largest increase in number of questions answered — 243.5% — occurred in October.

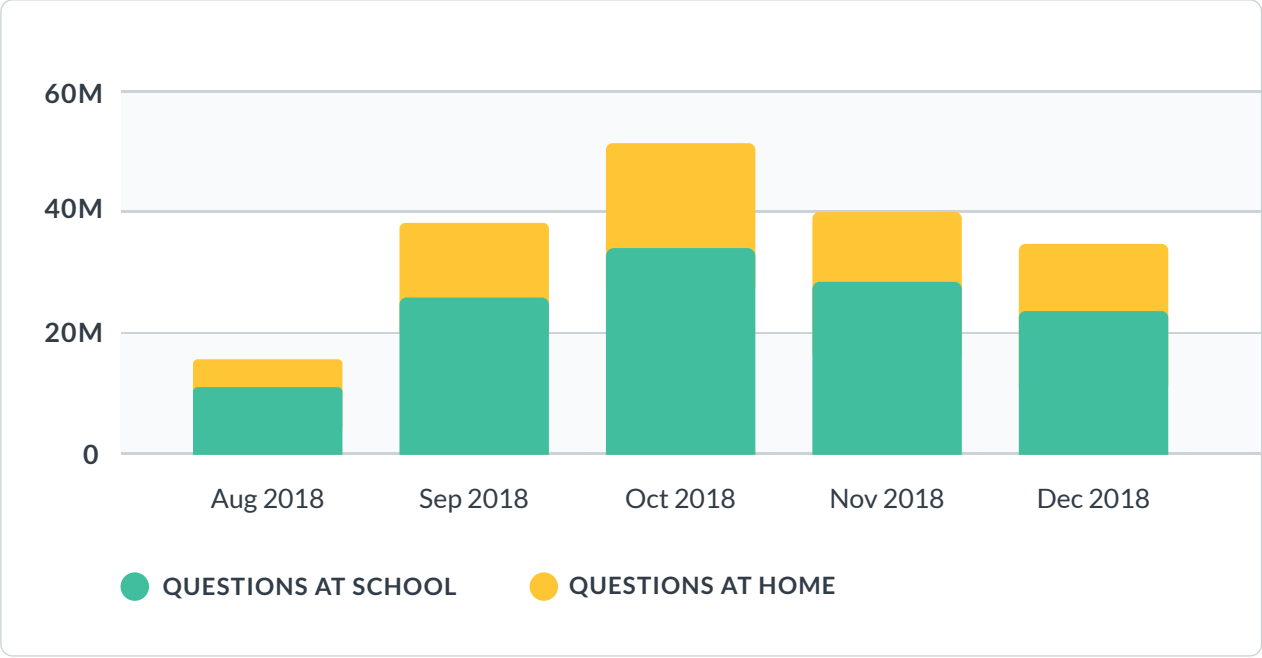
I use it as a math center, as an intervention, and also as one assessment piece to present to parents during conferences… I create quizzes and align their work to specific standards being taught. I also have them use the standardized test [prep] as practice for SBAC. Since students love to play, I have seen almost all students show progress and a couple of them who were struggling have met expectations.

Edda Caro Rodriguez
4th and 5th grade teacher, Rowland Unified School District

The true test

Measuring how much students use Prodigy at school is one thing, but is it enough to confirm the platform's ability to engage them? No. That's why it's important to observe the number of questions they answer outside of school and on weekends.

Compared to the 122.9% increase in questions answered at school between August and December, those answered at home increased by 129.4%.



With regard to out-of-school engagement, students answered nearly 57 million questions at home. That's 32% of the total number of daily questions answered in California.

What's more, we found students answered 19.7 million —11% of those questions — on Saturdays and Sundays.

These data suggest, on average, one student in California using Prodigy will answer **43.9 math questions at home on the weekend.**

The best part

While students are engaging with Prodigy in and out of school, teachers can schedule *Plans* and *Assignments* aligned with state-specific math curricula.

- ***Plans*** — Students will work through skills within an expectation at their own pace and drop back to pre-requisites if necessary
- ***Assignments*** — Students will receive a fixed set of questions from the skills that you choose

From August 2018 to March 2019, teachers across the U.S. created an average of 0.57 *Assignments* and 0.43 *Plans*.

In comparison, teachers in California each created 3.3 *Assignments* and 2.8 *Plans* between Aug. 1 and Dec. 31, 2018.

> *Prodigy is always used as a rotation station. It's usually the one my kids can't wait to get to, I also use it for intervention. I love how easily Prodigy shows me who needs help with certain skills so I make my intervention groups that way and use Prodigy to reinforce those skills. Right now I am using it as a test prep for the SBAC. Prodigy is a huge part of my classroom… I've seen students meeting expectations just by playing as little as 6 minutes a day. I've also seen huge growth among advanced students because they keep advancing levels and skills.*
>
> **Vannessa Fowler**
> 6th grade teacher, Rowland Unified School District

Spotlight: Harvest Valley Elementary

Chad Cooke is a 5th grade teacher at Harvest Valley Elementary School in Menifee, California. He uses Prodigy to help engage his students during daily math instruction.

Student engagement levels were so high that teaching and learning math became seamless and fun!

> *I did not dictate the time [students] spent on Prodigy because it was something they wanted to do. I would say on average they used the program for at least 20 minutes a day.*

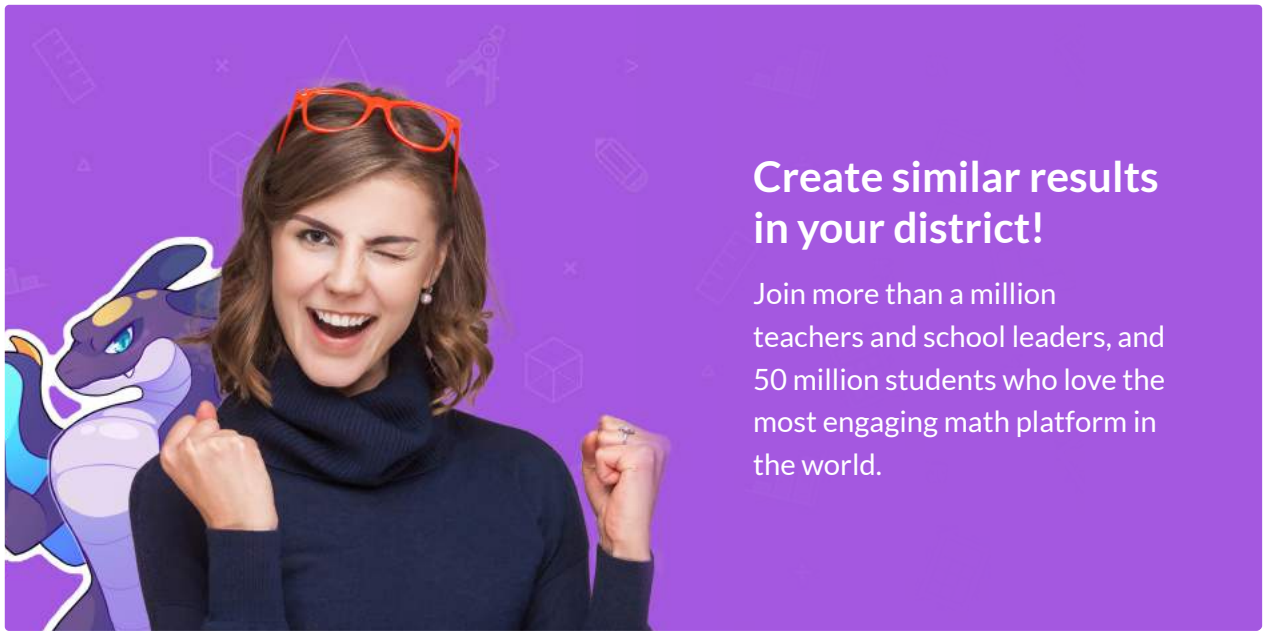
One of his students, Ray, found Prodigy incredibly engaging. From grade four to five, Ray **answered almost 18 thousand questions** on Prodigy. Within that time frame, **his score improved by 100+ points.**

A win-win

According to Cooke, Ray would also regularly ask classmates what level their characters were at, which helped foster a sense of **healthy classroom competition**. Students felt **motivated to continue playing Prodigy** and, as a result, spend more time practicing — and honing — math skills.

What's more, the adaptive learning platform differentiates for the kids based on their individual learning needs. This quality is crucial for two reasons:

1. Higher-level kids don't feel defeated because the math content is not repetitive
2. Lower-level kids feel like they're having success because their progress is self-paced



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