



Research Shows Learning Upgrade Increases Achievement for At-Risk Math Students

How an Innovative Intervention Program Increased Test Scores at a California Middle School

Educators at Black Mountain Middle School, located in San Diego, face many of the same challenges as colleagues across the country. A portion of their 8th grade students scored two or even three grade levels below average on their NWEA MAP's tests and were not yet ready for the 8th grade standard Algebra course. With no official school-wide intervention or at-risk program, Black Mountain math teacher Julie Garcia took this challenge on herself.



Learning Upgrade provides content differentiating instruction through engaging content including catchy songs, videos, and exciting games to reach even the most reluctant or discouraged learner. The curriculum is fully aligned with Common Core State Standards, and allows students to practice various concepts until they attain mastery. The platform provided necessary interventions and supports when students needed them along the way.

Black Mountain Middle School in Poway Unified School District, San Diego, California Student Data breakdown

2012-2013:

36 Students who did not use Learning Upgrade
(Year 1 Comparison Baseline Group)

2013-2014:

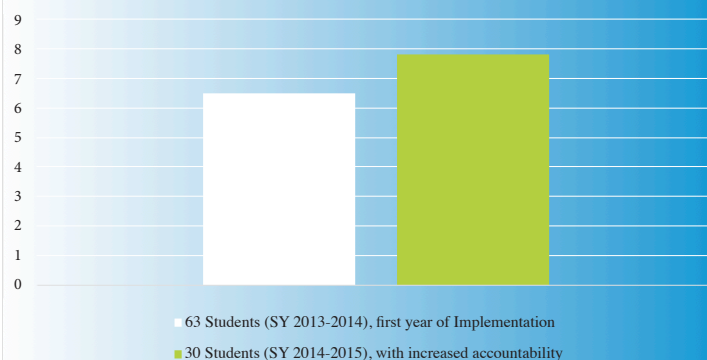
63 8th Grade Algebra readiness Students – using LU
(Year 1 Learning Upgrade Group)

2014-2015:

30 8th grade Algebra readiness students – Using LU
21 8th Grade Algebra Readiness students – not using LU
(Year 2 Comparison Groups)

She asked, what is the right mix of direct instruction, one on one time, and using a rigorous, online curriculum to ensure each of her Algebra Readiness students was set up for success? This was the question leading Mrs. Garcia to conduct a two-year research study comparing students using Learning Upgrade's curriculum as an intervention solution to those without access to the intervention platform. After two years, Mrs. Garcia's research concluded Learning Upgrade's lessons showed a significant impact on her student's math growth.

Average Overall Math MAPs Growth Comparison



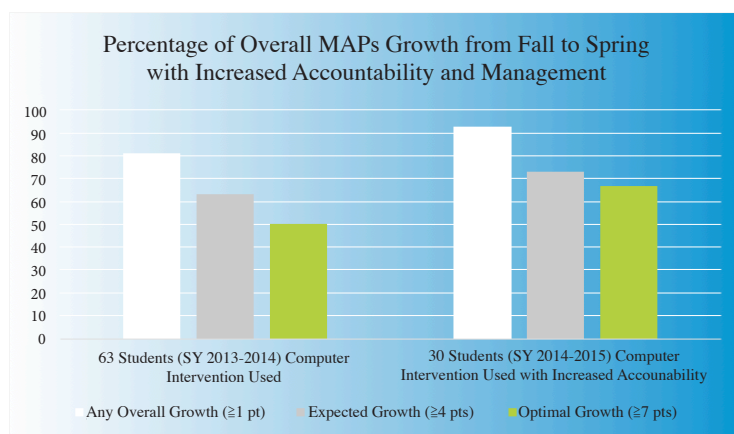


“By increasing the use of Learning Upgrade and successfully integrating it into our daily classroom activities, students realized a higher rate of proficiency in a shorter amount of time.”

Mrs. Garcia designed and implemented a way to collect, analyze, and interpret data comparing students using Learning Upgrade with those who did not, ensuring the research was objective and unbiased. Year over year, Mrs. Garcia saw students from varying learning abilities from diverse backgrounds enter her classroom, many of whom struggled in math and were not yet ready for the increased rigor of 8th grade Algebra.

Mrs. Garcia’s research shows pairing Learning Upgrade with direct teacher instruction was an effective way to increase test scores, student achievement, and cognitive ability. In year one, students realized a 6.5 point increase in NWEA MAPs scores. With increased accountability and expectations around the use of Learning Upgrade in the second year, student MAPs scores increased to 7.83 points. “Students enjoyed trying something new, and described the lessons as a great change-of-pace from a textbook-based algebra,” said Mrs. Garcia. “They were having fun with the program and showing progress in their learning.”

During her first year of research, Mrs. Garcia designed her teaching to include Learning Upgrade as part of the expected in-class and out-of-class work. However, the work was included in the student’s overall grade as extra credit based on each student’s level of completion. Her hope was that extra credit would be enough to encourage continued motivation of use of the program.



When comparing students with digital intervention to those with no intervention, students using the program experienced an overall growth rate of over 20 percent higher. Students spending more time using the program saw a drastic increase in achievement. Students not completing a majority of the lessons offered did not realize the same level of growth as students finishing all lessons within the courses provided.

In year two, Mrs. Garcia increased accountability, refined management, and integrated Learning Upgrade into her student’s calculated grade, to see if student scores would increase along with the usage of the program. To keep students on track in the program, she decided to inform parents of their child’s progress each week so they were able to support their student in and out of the classroom.



Students were expected to do two hours of work on Learning Upgrade a week; an hour during class, and an hour outside of class. Mrs. Garcia sent home weekly progress report sheets, which shared expected and current completion status, with parents. Holding students, parents, and herself accountable with consistent communication on progress in Learning Upgrade lead to increased student engagement and a higher course-completion rate.

“The weekly expectation for all students was to complete at least two levels of Learning Upgrade, allowing each student the opportunity to complete all 60 levels of the 8th grade math program by May.”

Students using Learning Upgrade, in addition to the standard Algebra Readiness curriculum, showed increased growth, over the students that did not use it. The class consistently using Learning Upgrade in and out of class, with high accountability, showed an “any overall MPAs growth” rate of 7% higher; an “expected MAPs growth” rate of 2% higher; and an “optimal MAPs growth” rate of 10% higher.

“Students using Learning Upgrade in tandem with Algebra Readiness Curriculum experienced significantly higher growth.”

When students completed all 60 levels of Learning Upgrade, the trend was to exceed eight points of growth, on average, which exceeds the optimal MAPs growth mark. One can conclude from the data, for students making substantial progress in the course, optimal growth was the norm. The increasingly positive results Mrs. Garcia saw across the board with her students reinforced her hypothesis. With a solid balance of accountability, direct and 1-on-1 instruction, and digital intervention, Learning Upgrade can serve as a cost effective math augmentation program creating optimal student growth and double-digit increase in MAPs growth can be achieved.

Mrs. Garcia has begun the 3rd and final year of her study. Her efforts have prompted Black Mountain Middle School to begin a school-wide afterschool intervention program for at-risk math students. Mrs. Garcia is heading this intervention group at her school.

