

# SOLVING FOR X:

# THE PROBLEM WITH ALGEBRA

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## PRINCIPAL EVALUATION CRITERIA

*Planning with Data, Improving Instruction, Closing the Gap*

LEARN MORE ABOUT THE PROGRAM AND WATCH THE VIDEO AT:  
[collegespark.org/grantee-results/wapato-high-school/](http://collegespark.org/grantee-results/wapato-high-school/)

Like most schools, Wapato High School has a major challenge called algebra. Our students struggled with algebra, which resulted in a high failure rate in the classroom and formed a fixed mindset in our students for math in general. Students easily gave up on themselves which increased the likelihood of them becoming a non-graduate, placing a negative impact on their future lives.

## "GROWTH MINDSET" ALGEBRA

Wapato High School staff implemented several programs to assist our students from traditional intervention courses to reformatting our student assessments. The results were minimal causing more frustration for all parties involved. Then in the spring of 2015, we received a grant that allowed us to incorporate in our schedule Intensified Algebra. Intensified Algebra infuses the concepts of a "Growth Mindset" with the teaching of algebra. The grant was for two sections of 25 students, and each section would require additional time than what our regular class periods provided.

The most important process to implementing the Intensified Algebra

program was planning and the set-up. The first step we took at Wapato was to select a "team" of teachers that have a "Growth Mindset" and are willing to work together. The two instructors that were selected already got along with each other and shared a desire to increase our students' algebra skills. As we built our master schedule, we made sure our Intensified Algebra teachers had common prep time and that the Intensified Algebra classes were two consecutive class periods.

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Our next step was to dedicate the necessary technology for each of the classes. The Intensified Algebra curriculum has an online component, and we wanted our teachers and students to have full access to all the tools offered. Both classrooms were equipped with a computer cart. The Intensified Algebra teachers also received additional professional development from the partners of the grant. The people at Agile Mind are dedicated partners that perform site visits and summer trainings. The final piece was for the administration

to provide encouragement, which we did in weekly data meetings as well as classroom walkthroughs. The result of this hard work became apparent in a short period of time.

## "FIXED MINDSET" REACTIONS

During classroom observations, we observed students engaged, talking math, and most importantly enjoying what they were doing in class. Students were sharing their thought process with their peers in a relaxed atmosphere. Several of the students, when asked their opinion of the Intensified Algebra class compared to their previous math classes, said that they enjoyed the class, and that they were finally understanding how to do the math.

The students in Intensified Algebra were outperforming the students in a regular algebra class. Ninety-six percent of the students passed the Intensified Algebra class compared to 57 percent of the students in the regular algebra classes. This was a remarkable result that we were going to celebrate. I presented the data to the math department, and I was shocked at what I heard from the non-Intensified Algebra teachers. One teacher said, "If I had the students for two periods a



A Wapato "Growth Mindset" student.



Principal Eric Diener

day, I would get the same results.”

The “Fixed Mindset” was strong with some of the staff and I needed to provide more information that proved that the Intensified Algebra program was changing student lives for the better. Therefore, I examined the Intensified Algebra students’ grades in English and found that they had a 20 percent positive difference than their peers. In fact, the trend was the same for social studies. I also noted that they had 10 percent discipline referrals compared to the students in regular algebra.

“ Math is still a major challenge for the staff and students of Wapato High School, but now we believe that we are ready for this challenge and together we will succeed.”

I presented this data to the entire staff and this time they were receptive and wanted to know more about how they can incorporate a “Growth Mindset” in their classes. As a result of the success of the Intensified Algebra program, the majority of the staff have read “Mindset” by Carol Dweck, and have been motivating students that they can succeed if they try. We have a phrase at Wapato: “When you first don’t succeed, avoid being frustrated. Frustration leads to quitting; instead, see the situation as a challenge and try again.”

Wapato High School has just completed our second year of Intensified Algebra. The students in the program are out-performing their peers by over 20 percent in most subjects. As a result of the success we had with the first year of the program, Wapato High School received a grant from College Spark of Washington



PROBLEM SOLVING: Wapato High teachers used a Growth Mindset to focus on and improve student algebra scores.

that allowed us to purchase the geometry curriculum from Agile Mind. The results of the first year was an 18 percent increase from the previous year in our geometry passage rate.

Math is still a major challenge for the staff and students of Wapato High School, but now we believe that we are ready for this challenge and together we will succeed. ■

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