

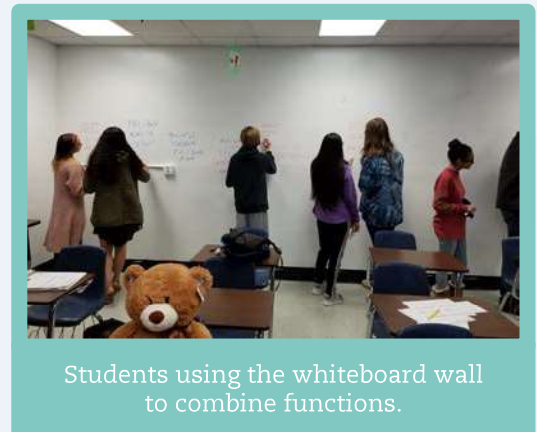
Whiteboard Walls for Math Engagement

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SUMMARY During my clinical placement, I observed that many students tried to solve a problem as quickly as possible, with little enthusiasm for structured practice of mathematical skills. My Goizueta–Woodrow Wilson Enrichment Microgrant project was to use whiteboard wall paint to create additional exploration and thinking spaces for students in algebra classes. After painting the walls of the classroom with whiteboard paint, we used colored notecards to write down differentiated practice problems for mathematical skills, building a collection of colored and tiered practice problems. The goal was to offer increased exploration space as a means of improving students' willingness to practice and explore math and also increase achievement.

IMPACT ON STUDENTS I have seen that whiteboard walls increase students' willingness to practice, their persistence in solving problems, their confidence, and their ability to analyze and fix errors, as well as their level of collaboration and discourse. In the future, I will use the remainder of my microgrant to continue my research by creating whiteboard walls in my classroom. I plan to focus my next stage of research on determining if whiteboard walls increase engagement and success in solving non-algorithmic mathematics problems. Of my students, 64% felt that they made fewer mistakes working on the whiteboard wall, 38% felt that the wall improved their ability to see errors, and 26% of students believed the wall made it easier to fix mistakes. More than 50% felt that the wall provided better space for working and exploring problems, 23% liked being able to stand and do mathematics work, and 25% felt working on the wall was “fun.”



Students using the whiteboard wall to combine functions.



Working with students who are practicing with individual whiteboards.

EFFECTIVENESS IN TEACHING The microgrant has improved my teaching by being instrumental in increasing collaboration, discourse, and achievement in my class. Classroom management and engagement has been improved by having a practice tool that gets students out of their desks and talking with their peers about mathematics. The Goizueta–Woodrow Wilson Enrichment Microgrant program—through the workshops—has also given me information about increasing funding, being a school leader, and completing research.

IMPACT ON EDUCATORS The mathematics department and the Algebra PLCs have been invited to test the wall, and my cooperating teacher and I have discussed its usefulness in the classroom. Leaders in the district of my clinical placement were eager to know more about the whiteboard wall. They visited the class and spoke with my CT about the brand, costs, and its usability. In the future, my CT and I plan to continue researching and eventually publish or present on its use in classrooms.

WORDS OF ADVICE There are many brands of whiteboard paint such as Rust-Oleum Dry Erase, ReMARKable, and IdeaPaint. ReMARKable has low odor and is the same cost as idea paint; however, ReMARKable often has a 20% off special on the first order and free shipping. When applying the ReMARKable paint, be sure to apply a thick, single coat. Make one batch at a time as it cures in a short amount of time. The paint costs \$630 for 200 square-feet of paint.