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# Guest Blog: A Middle Schooler's Take on Changemaking: Drops in the Bucket

JANUARY 30, 2019



Hello! My name is Dalia Melody Hembal and I am an Eco-Leader with Grades of Green, an environmental nonprofit that I have been part of for the past two years. I would like to share with you the research findings of our Grades of Green project during the Fall 2018 Water Campaign.

Being confronted with a water drought situation here in California, there was one major topic which popped up in my mind - at home, it takes really long for the shower water to finally get warm! To stop my heartbreak from seeing this water get wasted, I started a Water Campaign with 12 of my class peers at Katherine Johnson STEM Academy in Los Angeles, CA with the support of my mom and my homeroom teacher.

The research activity for all of us - including our other classmates of 18 more students - was placing buckets underneath our showers and catching the cold shower water as we waited for our shower to get warm. During that time, we also measured how long it took for the water to get warm. We found out that in some homes, the water took longer to get warm than in other homes: the times we measured were between 15 seconds to 1.5 minutes! These findings showed us that some homes have more eco-friendly water heating systems than others. It was shocking that in our house, it takes 1.5 minutes to get warm water even though our home is just 10 years old. The builders should have already installed reliable water heating systems in such a young housing community.

Another finding was that in the time it took for shower water to warm up, we would have lost 32.5 gallons of water from taking just one shower if we hadn't caught it! Our first success was conserving this water and reusing it for watering plants, washing dishes, feeding pets, washing shoes, and putting it in a water filter. As an end project, we also created a 3-minute video which explains everything that we found out and what we did! Check it out here: <https://youtu.be/ab7oiX5cpYI> (<https://youtu.be/ab7oiX5cpYI>)



Don't you think it would be an even greater success if not just we as a school community, but all residential communities across California and the country would do the same? And what if all new communities across the country like Playa Vista, a completely new housing development with almost 60,000 residents, would do the same research study and find out which of the townhomes and apartment buildings have the least and most sustainable water heating system? Then they could just use the most environmentally friendly ones in their further developmental process to earn a green building standard.

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This was a great post, thanks for sharing! It make me think of how much water my family uses for showers every week.

02/04/2019 - 6:50pm

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