

## Weather and Climate: A Story of Teacher Leadership



Five years ago I was cautioned, as many new teachers are, not to eat lunch in the staff lounge. The argument was simple: the staff lounge is a place where teachers endlessly complain about students. “It just gets you so depressed,” my stepfather, a 30+ year veteran public school teacher in California, warned.

So for five years I avoided that place like the plague. But this winter, I ventured into the lounge with my lunch tray. At first, it was to show gratitude towards my coworkers, who generously donated a mountain of diapers as a baby shower gift. Now, though, I’m spending more and more of my lunches eating with my colleagues.

I’ve noticed that the topic of conversation in the staff lounge seems to dwell on particularly disruptive students, lessons that flopped, or, more often than not, the weather. I live in a rural agricultural community in Colorado, many hours from metropolitan Denver or the posh resorts of Summit County. People in my community, teachers included, love talking about the weather. The allure of a

casual weather conversation is that it transcends all boundaries of politics or religion. Whether it is the late frost that ruined the peach blossoms or the persistent rains that bogged down the plows, weather is where newcomers from the city and third generation cattle ranchers find common conversational ground. A frequent misconception in my earth science classroom, my rural Colorado community, and society as a whole is the conflation of the terms “weather” and “climate.” This confusion can lead students and the public towards unscientific conclusions about the existence and consequences of global climate change. Weather is an ever-changing melange of chaotic atmospheric conditions; the study of climate requires looking for patterns by examining decades—even centuries—of carefully averaged data.

This makes weather a much easier subject than climate to talk about and to take actions around. A meteorologist attempts to predict how you should dress for tomorrow and you curse them every time they are wrong, but you can easily pack an umbrella just in case. Climatologists, on the other hand, step back and look at historical data and build models that give a range of possibilities for the future. That single degree of temperature change over a decade might not feel like much, but it can disrupt delicate plant-pollinator relationships or cause a region’s principal crop to suffer.

As a science teacher with a background in climatology, I find it ironic that as a nation we have become fixated on the Weather Channel but just can’t give a hoot about the serious, underlying issue of a rapidly changing climate. My personal explanation is that the slow, creeping time scale at which climate change occurs is no match for the exciting immediacy of extreme weather events.

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After all, climate scientists can't help you decide whether or not to delay your afternoon wedding ceremony. Their complicated climate models won't help you decide to wear sandals tomorrow or whether you should break out the snow chains. However, increased global temperatures do lead to warmer oceans, and this has profound implications on weather events around the world. From intensifying hurricanes along the already beleaguered Gulf Coast (Knudson et al., 2010) to disrupting the jet stream and plunging the Eastern states into frigid wintertime weather (Palmer, 2014), human-caused climate change is already influencing our day-to-day lives in unfathomable ways. Yet, instead of talking about climate change, we stay glued to the weather, fretting over urgent happenings when it is the important underlying climate system that we really need to be talking about.

We can't really do anything to stop the weather. Rain will come when it may, and that early frost will kill all your tomatoes. But we actually have the power to do something about our changing climate. We can limit our personal carbon footprints and elect officials who will work with global leaders to wean our society off carbon-intensive fuels.

However, working to stop climate change is a slow process without tangible feedback. The subtle timescale and massive spatial scale at which climate change operates make it hard to tell if our actions are making a difference. So instead we keep checking our weather apps and hope for the best.

I find our culture's weather obsession and climate denialism a helpful analogy to help me make sense of the patterns of conversations I see in the staff lounge at lunch hour. We teachers love talking about our classroom and our students. But so often we focus on the day-to-day: the single lesson that flopped or that particular student who is acting out or hard to reach. I, too, find myself discussing classroom "weather" with my colleagues, despite the fact that most days we are relatively powerless to control it. In the teachers' lounge, the conversation often turns toward the atypical behavior of one particular student, rather than looking for patterns that transcend across class periods. Like the weather, those

particular conditions will never exactly repeat. Instead of the “weather” in our classrooms, we need to be talking about the “climate” of our schools and our community. But how do we start to shift the conversation?

Growing inequality, decreased access to mental healthcare, and eroding family structures due to economic instability act like Earth’s increasing load of greenhouse gases, putting stress on the “climate” of many rural and urban schools. Yet instead of talking about status, race, equity, and inclusion as a staff, we stress about the “weather.” Maybe it is because these issues are far outside the boundaries of our control, or maybe surface-level conversations are less risky and easier to talk about between bites of a sandwich. I certainly think so. Either way, the break room simply doesn’t feel like the place for such heavy issues.

So is there value to talking about the weather? Just like the freak May snowstorm that knocked down trees all over the county, stories about the weather are emotionally resonant and connect us to a shared, immediate experience. Climate models and historical statistics just don’t compete with the feeling of your boots filling with rainwater. Similarly, classroom stories— even those shared in the lunchroom—give teachers clear examples instead of generalities and help us build empathy for each other’s struggles. I once shrugged off this type of lunchroom discussion of classroom “weather” as unproductive venting, but I am starting to realize that it has a purpose. My colleague Heidi Park understands this sentiment, writing, “although your context is different from mine, your successes and your struggles are both things that I can relate to. And most likely, my successes and struggles are things that you can relate to” (2016). I find myself leaving the lunchroom with a new perspective of what it feels like in other classrooms at my school and an appreciation for, and connection to, the successes and struggles of my colleagues.

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In the last decade, national surveys have shown a modest increase in society's acceptance of climate change as human-caused. Possibly the increase is due to scientists learning how to humanize the data they collect through telling compelling stories about specific communities and species that are impacted by climate change. I am slowly learning that this might be the value of the staff lounge—a place where teachers can share personal and unabashed stories about the “weather” in their classroom.

Conversations over lunch have helped me connect with my colleagues and learn that we share the same positive intent for our students. The work we do every day supporting and caring for students can often be arduous, and knowing that others are struggling helps build rapport. I hope that, if and when we finally have a dedicated time and space to address the “climate” issues at our school, our lunchtime conversations will have helped us build the trust we need to be open and honest.

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*Ben Graves, a Knowles Senior Fellow, teaches science at Delta High School in a small agricultural and mining community in western Colorado. Over the last three years, he has also been developing a vocational course in solar electricity. His students will soon be breaking ground on an outdoor solar lab that will offset energy use at the school. Reach Ben at [ben.graves@knowlesteachers.org](mailto:ben.graves@knowlesteachers.org).*