

## Thoughtfully Engaging Marginalized Students in Social Justice Tasks

At Knowles, we invite teachers to research the relationships between the tasks they choose, the talk that students are able to engage with as a result of those tasks, and the opportunities that students have to demonstrate the ways that they are competent and proficient in math and science. We then ask teachers to define for themselves how this study of their practice contributes to their development of equitable teaching practices. Equitable teaching is a focus of the Knowles Teaching Fellowship and task choice is just one facet of this work. As a former math teacher, who is currently in a role that provides mentorship, I understand there are contextual factors that impact the kinds of tasks that teachers choose to use in their classrooms. In this blog, we share the reflections from one teacher of color on the challenges inherent in using social justice tasks in ways that support students' critical thinking without further marginalizing historically marginalized students, and respond to these reflections with considerations for a professional development provider.

*As a South Asian-American woman teaching in a school of Black and brown children for the last six years, I often reflect on the impacts of schooling on students. Every morning, I have students come into the classroom with stories of how they had been harassed by the police on their way to school. I think about how after a student brought a gun into school, we were mandated to install metal detectors and employ a "school safety officer." I think about how people rotated through that role of "school safety officer," and students were often yelled at, physically assaulted, and treated as criminals before they even got to my classroom in the morning. I also think of my students' families—the support, care, and partnership they brought to the classroom was invaluable. I think of my colleagues and their collaboration and empathy, how I am a better teacher because of them.*

*It is through this lens that I reflect on my own classroom and how I seek to grow in my practice. I want my students to feel welcome in my classroom because I invite them to bring their whole selves. I don't want them to only think mathematically about the questions they have about the world but use their identities and experience to engage in reasoning and sensemaking in my math class. I want them to feel like they can honestly assess and apply their own value to a society that they know has a historical (and current) legacy of harming their ancestors, their families, and their communities. This awareness means that when*

*teachers are encouraged to do the shiny, cool new thing, or break our regular teaching habits to incorporate some real-world problem solving into our curriculum, we need to approach this work with knowledge, empathy, and vulnerability.*

*When I implement social justice tasks in my classroom, I know there are many lenses that impact how I and my student will interpret and reason about a task. And that these tasks approximate some potential painful realities of my students' lives or communities. There is racial identity, gender and gender representation, class, sexuality and sexual orientation, ability, ethnicity, immigration status, neurodivergence, home language, affluence, etc. These lenses are intrinsic to our conversations about issues like academic tracking, access to water, vaccine access, and voting rights and gerrymandering, whether or not we explicitly name them. For example, there are real consequences to a lack of vaccine access in some communities and this has resulted in preventable deaths. This issue is more than just a problem to model and investigate in a high school mathematics class. For some families it represents loss of community and financial stability.*

*It is in the naming and application of these lenses that we hope students learn to value mathematics as another tool for understanding and engaging in critical dialogue with others. We hope they engage in math as a humanizing practice that intentionally considers rather than strips away the lived experiences of real people.*

As a former classroom teacher, mentor for beginning teachers, and Black woman, this reflection of school being an inspirational **and** painful place is not lost on me. The very conversations that I am supporting teachers to have don't exist outside of the contextual realities of schools all over the nation. Whether the social justice questions are focused on water safety, **racial profiling**, the criminalization of absenteeism, or the presence of food deserts, these questions and conversations cannot be raised without some stigma. When students are in schools where their experiences are not all or always the same, supporting conversations that invite questions about status quo while not creating a victim, token, or representative is challenging. So from this perspective, I share two considerations for how to support teachers in this work.

Consideration 1: Your identity informs how you engage with the work and with the teachers you support.

Aguirre, Mayfield-Ingram and Martin (2013) among others, suggest that a person's identity heavily informs their work as a teacher. This is true of professional development (PD) providers as well. If you haven't done the work to understand your own views about issues like water safety and access to food deserts, you might inadvertently harm the teachers you are trying to support and/or the students in those teachers' care by extension. When you are encouraging teachers to use real world dilemmas in their classrooms, you must also encourage them to

prepare for the conversations that may take place through research  
consider the norms that need to be in place to support constructive, though  
not impassionate, discussion, and  
think about the students they teach and how to care for their minds and their emotions.

In *The Wake Up: Closing the Gap Between Good Intentions and Real Change* by Michelle Kim, readers are encouraged to *wake up to their hidden stories*. These hidden stories are privileges that we experience and take for granted. For example, teachers interested in using tasks focused on something like food deserts need to reflect on their experiences with food deserts. If they've never experienced one, they need to **read accounts on the impacts of food deserts** and learn about the ways communities have **addressed this problem**. The conversations beyond the computations is the benefit of using social justice tasks with students. These tasks and ensuing conversations have the potential of showing students ways that people in their and other communities are disrupting the inequities in our nation. This is what teachers need to prepare to engage students in.

As a PD provider I, too, need to wake up to my hidden stories and need to practice engaging in conversations with others that support increased awareness and vulnerability about these impassioned topics. At Knowles, we engage in regular conversations as a staff to practice acknowledging our privileges and reflecting on the ways they impact our work together and our work with teachers.

Consideration 2: Healthy conversations build and are based on healthy relationships.

In a conversation I had with John Staley, co-author of *High School Mathematics Lessons to Explore, Understand, and Respond to Social Injustice*, he said, "If your

student can't listen to others' reasoning and disagree about mathematics, you may want to wait to introduce social justice tasks into your classroom." This sentiment resonates with me. In our work with teachers, we use ideas from *The 5 Practices for Orchestrating Productive Mathematics Discussions* to support them in planning for discourse in math classes through careful lesson planning. The practices are to:

- set a learning goal for the lesson,
- anticipate how students might respond to a math task,
- monitor how students engage with the task and match their work to your anticipation,
- sequence the solution and problem solving strategies according to your learning goal, and
- connect the solutions that have been shared to support students in making sense of the learning goal.

If these practices are applied to the teaching of social justice tasks, the practices might read:

Set a learning goal for the lesson about how students reason through the mathematics of the task and learn about how the current dominant system works together to cause such an inequity.

Anticipate both how students might respond to the math of the task and reflect on how their lived experiences and identities might impact how the tasks are taken up and what positions students might take on the social justice problem. Teachers also need to anticipate what discourse and classroom norms might need to be leaned on to support a healthy exchange of ideas.

Monitor how students engage with the task, how they feel able to communicate about their stance on the issue, and how humanely students talk about the groups of people that are the targets of the inequity. Remind students that they are not talking about numbers but about people who, no matter their circumstances, deserve compassion and respect.

Sequence the solution and problems solving strategies according to your learning goal and

- invite students to offer context that is missing from the problem you presented,

- allow students to engage with resources that bolster their lived experience and cultural histories, and

- invite students to talk about the feasibility of their mathematical solutions given the constraints of the targeted communities.

Connect the solutions that have been shared to support students in making sense of the learning goal and the world that they live in. This has the potential to shape students as future leaders.

It is in this thought exercise about the ways that the 5 practices can be expanded to support teaching and learning around social justice tasks, that I am reminded as a PD provider that there is more reflection to be done, more vulnerability to be practiced, and more compassion to be shared. While I have taught high school math and have worked for nearly a decade with early-career math and science teachers, I am not an expert in having these kinds of conversations. My lived experience as a Black woman, sister, wife, mother, and graduate with Caribbean heritage has made some inequities apparent to me while my cis-hetero-Christian-middle class experiences contribute to hidden stories for me. With that in mind, whether in my identity as a teacher or PD provider, I need to resist stripping politics, structures, and cultural constructs from my mind when I am engaging teachers in discussions about social justice and mathematics education. Instead, I need to realize that there are no classrooms, no schools, and no students that exist outside of these constructs. This realization can offer opportunities for shared reflection and compassion in discussions about schools and the experience of students. Teachers' power to choose tasks and the context of the tasks must be connected to careful consideration of the many impacts on their students. And our work as PD providers is to surface hidden stories, invite opportunities to practice conversations about introducing social justice tasks, invite the multiple perspectives we learn from our colleagues and mentors into the conversations with teachers about these tasks, and center the voices of those most marginalized.

## References

Aguirre, J., Mayfield-Ingram, K., & Martin, D. B. (2013). *The impact of identity in K-8 mathematics learning and teaching: Rethinking equity-based practices*. National Council of Teachers of Mathematics, Incorporated.

Berry III, R. Q., Conway IV, B. M., Lawler, B. R., & Staley, J. W. (2020). *High school mathematics lessons to explore, understand, and respond to social injustice*. Corwin Press.

Kim, M. M. (2021). *The wake up: Closing the gap between good intentions and real change*. Hachette Go.

Smith, M. S., & Stein, M. K. (2018). *5 Practices for orchestrating productive mathematics discussion*. National Council of Teachers of Mathematics.