

Seattle Schools Lead Controversial Push to 'Rehumanize' Math

Education Week, By Catherine Gewertz, October 14, 2019

The Seattle school district is planning to infuse all K-12 math classes with ethnic-studies questions that encourage students to explore how math has been “appropriated” by Western culture and used in systems of power and oppression, a controversial move that puts the district at the forefront of a movement to “rehumanize” math.

The [district's proposed framework](#) outlines strands of discussion that teachers should incorporate into their classes. One leads students into exploring math's roots “in the ancient histories of people and empires of color.” Another asks how math and science have been used to oppress and marginalize people of color, and who holds power in a math classroom.

Another theme focuses on resistance and liberation, encouraging students to recognize the mathematical practices and contributions of their own communities, and looking at how math has been used to free people from oppression.

Seattle's proposals land as schools all over the country are discussing the role ethnic studies should play in their curricula. In most places, if schools offer ethnic studies at all, it's usually in a stand-alone course in high school. But increasingly, schools and districts are starting to sprinkle ethnic studies across the K-12 spectrum. Seattle is taking a highly unusual approach by weaving the field's multicultural and political questions not just through all grade levels, but into all subjects.

Seattle's four-page framework is still in the proposal stage. If adopted, its ideas will be included in existing math classes as part of the district's broader effort to infuse ethnic studies into all subjects across the K-12 spectrum. Tracy Castro-Gill, Seattle's ethnic studies director, said her team hopes to have frameworks completed in all subjects by June for board approval.

If the frameworks are approved, teachers would be expected to incorporate those ideas and questions into the math they teach beginning next fall, Castro-Gill said. No districtwide—or mandated—math/ethnic studies curriculum is planned, but groups of teachers are working with representatives of local community organizations to write instructional units for teachers to use if they wish, she said.

“Seattle is definitely on the forefront with this,” said Robert Q. Berry III, the president of the National Council of Teachers of Mathematics. “What they're doing follows the line of work we hope we can move forward as we think about the history of math and who contributes to that, and also about deepening students' connection with identity and agency.”

Seattle's framework reflects ideas and practices that NCTM has outlined in publications such as last year's “[Catalyzing Change in High School Mathematics](#),” Berry noted. That report argues, among other things, for renewed focus on helping students see how math affects the lives of millions, in social media algorithms, polling data, and world finance.

But what some see as leading-edge work, others view as misguided. Seattle's proposed guidelines caused a furor on social media after Rod Dreher, an editor for The American Conservative, [blogged about them on Sept. 30](#). In a Twitter thread dubbed #WokeMath, critics sneered at the district's blend of math and oppression, and zeroed in on parts of the framework that ask, “How important is it to be right?” and “Who gets to say if an answer is right?”

Seattle talk-radio host Dori Monson jumped into the fray on his own blog, asking, “Did you realize when you subtracted one number from another that you were disenfranchising people by using Western math?” Liz Wheeler, a host on One America News, tweeted that Seattle “is now teaching kids as young as Kindergarten that math is racist.”

Castro-Gill said that one elementary school has been trying out some of the ideas from the new framework, but she wouldn't name the school “because of the hate and vitriol” on social media.

‘Of Course There Are Right Answers’

She said opponents have misconstrued the proposed guidelines, especially the section about right answers.

“Of course there are right answers in math. We’re not saying there aren’t,” Castro-Gill said.

“What we’re saying is that there are many ways of reaching conclusions, and that process should include dialogue. If a student got the right answer, we should celebrate that ingenuity and intelligence instead of telling them there is only one way to get to that right answer.”

When too many black and Latino students see no place for themselves in math and science, Castro-Gill said, it’s important to be explicit about how their own cultures contribute to math and how they can use it to make their communities, and the world, better.

Seattle’s new math framework grew out of a 2017 community campaign, led by the NAACP, for more attention to ethnic studies. Its work to blend math and ethnic studies draws on conversations that have been unfolding for decades in the field of ethnomathematics, which focuses on cultural links to math, and in a movement known as “rehumanizing math.”

Ethnomathematics, which studies the intersection of math and culture, took shape in the late 1970s, introduced by Brazilian math professor Ubiratàn D’Ambrosio. Leading thinkers in the field now include Linda Furuto at the University of Hawaii at Mānoa and Filiberto Barajas-López at the University of Washington’s school of education in Seattle.

More recently, some scholars, most prominently Rochelle Gutiérrez at the University of Illinois-Urbana/Champaign, have begun advocating for a “rehumanizing” of mathematics, which places dynamics such as race and oppression at the center of conversations about math and culture.

Gutiérrez noted that math organizations that focus on the preparation and oversight of math teachers back key concepts that appear in Seattle’s proposed guidelines. [The Association of Mathematics Teacher Educators’ standards for teacher preparation](#), for instance, say new math teachers should “understand the roles of power, privilege, and oppression in the history of mathematics education.”

“Math education has been very focused on access and closing the achievement gap, around grit and growth mindset. Those ideas are centered around individuals, and ways of thinking they need to adopt. We haven’t focused enough on identity or systems of power,” Gutiérrez said.

“Students should be able to see themselves in the curriculum, recognize math as a tool for making their lives better, and question what math is, and the purpose of math,” she said.

Expanding Inquiry Into the Purpose of Math

A top official at one math organization agreed to talk only anonymously about the new framework to avoid becoming part of the controversy. Starting the conversation with a sigh, he said it’s too bad that Seattle blended important ideas with highly controversial ones.

“We all want students of color to be included, believe they can learn math, and see themselves as mathematicians,” he said. “It’s important for them to learn about great contributions to mathematics from all cultures—Indian and Chinese and Babylonian.

“But you don’t need to talk about liberation and oppression and how Western mathematics has somehow taken over. It just turns people off and makes the goal of being inclusive that much tougher.”

Other leaders in math education welcomed Seattle’s push to incorporate political and cultural questions into math, and some said they’d been including similar questions in their teaching for years.

Berry, of the NCTM, recalls an exercise he did with aspiring math teachers when he taught at the University of Virginia. Berry gave his students a drawing of a square. One half was filled with red dots, and the other half with blue dots. Students had to find various ways of dividing the space, some structured to let the red dots win, and others to let the blue dots win.

“It was a lesson in gerrymandering,” Berry said. “It showed how we can create structures with geometry to get the outcomes we want politically. We can construct them for advantage or disadvantage.”

Peggy Brookins, the president and CEO of the National Board for Professional Teaching Standards, said she got pushback to culturally sensitive strategies as a high school math teacher in the mid 1980s.

Capitalizing on her school’s location near NASA’s Kennedy Space Center in Florida, Brookins linked her lessons to the astronauts’ work. As her students studied exponents and the power of 10, she had them calculate the speed at which rockets left Earth’s orbit, and led a discussion of how astronauts of color had struggled to find roles in NASA’s programs.

“My principal came and asked me to step outside,” recalled Brookins. “He said a parent had called and said he didn’t send his daughter to school to learn about black people.”

Her principal backed her up, telling the angry parent that there were many private schools in town if he wished to transfer his daughter. But the experience stuck with Brookins.

“I get what Seattle’s doing. I get where they’re coming from,” she said. “People need to realize culturally responsive pedagogy in ways they haven’t historically.”

Source: <https://www.edweek.org/ew/articles/2019/10/11/seattle-schools-lead-controversial-push-to-rehumanize.html?cmp=eml-enl-eu-news2&M=58956562&U=27581&UUID=6434c0b73358c890ca4ff33d56e02219>

Understanding Ethnomathematics

Seattle’s proposed framework blending math and ethnic studies emerged from ongoing conversations in the field of ethnomathematics, and from a newer push to “rehumanize” math. Here is a sampling of articles and books often cited as good primers on those ideas.

[*Rehumanizing Mathematics for Black, Indigenous and Latinx Students*](#), 2018 edition of the National Council of Teachers of Mathematics’ journal, “Annual Perspectives in Mathematics Education,” editors Imani Goffney and Rochelle Gutiérrez

- “[What is ethnomathematics, and how can it help children in schools?](#)” by Ubiratan D’Ambrosio. From the NCTM journal “Teaching Children Mathematics,” February 2001
- “[Rehumanizing the ‘Other’ Race, Culture, and Identity in Education Research](#),” by Jennifer Langer-Osuna and Na’ilah Suad Nasir, “Review of Research in Education,” December 2016
- “[One District’s Systematic Approach to Detrack High School Mathematics](#),” Brian R. Lawler, conference paper presented at 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Greenville, S.C.

[*Ethnomathematics: Challenging Eurocentrism in Mathematics Education*](#), Arthur Powell and Marilyn Frankenstein, editors, State University of New York Press, Albany, 1997

Source: Education Week