Social Justice Math
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When people talk about equity in mathematics education, they are often talking about providing more equal access to high-quality mathematics instruction, better resources, and advanced courses. They might also mean higher achievement for historically low-performing students, like Black students or students from low-income backgrounds. Equitable teaching practices, like these key ideas about mathematics teaching & Complex Instruction, can go a long way towards helping every student have access to high-quality mathematics learning, and consequently higher achievement. But that’s only part of the picture.
What is social justice math?

Social justice teaching in mathematics focuses on promoting equity within the mathematics classroom, but also on empowering students to understand and confront inequities outside the classroom.
Gina’s passion for teaching, connecting, and empowering is inspiring!
A few of the key points that I took away from Gina’s TedTalk!

- We need to stir the coals and ignite the fire for learning!
- Make math exciting and engaging!
- Leverage the students’ passions, skills, and talents!
- Open the doors of opportunity for all kids!
- Math impacts the health, wealth, and the cultural vitality of our nation.
- Math helps people shape the world around them.
- Teach math through story and engage the students.
- Engage students with imagery and play!
- Integrate math with other subjects with hands-on activities.
Social justice math in a Canadian classroom!
Social Justice Math in the classroom

- Students solve math problems that really matter.
- Same expectations for the students, but using numbers that are real, authentic, and meaningful.
- Social justice math lets students learn about the issues, but also learn how they can make a difference for the better.
- Teachers find the numbers and the students work with them.
- Students are learning to think critically in their math, reading, and writing.
- It empowers the students to care and make a difference because these are real and authentic issues and numbers.
- This is math that students can use outside of the classroom.
Social Justice Lessons Ideas

- Analyzing voter turnout in federal elections
- Analyzing yearly hate crime statistics
- Researching fair trade chocolate statistics
- Comparing wages of workers in China to local worker wages
- Three-Fifths Compromise from the Constitutional Convention of 1787, use math and data to study its effect on the balance of power between free and slave states.
- Use percentages and expected value to understand how health insurance works from the perspective of both consumer and insurance company.
- Students use linear equations and solve linear systems to examine what happens when financially vulnerable citizens receive small municipal fines that they can't pay off.
*My Lesson Plan*

Comparing COVID Cases Across Montana’s Demographic Populations

Students will learn through math that there is something happening on the reservations that is causing them to have higher rates of COVID cases and subsequently more deaths. This lesson will help them to start conversations about why this is occurring, how federal policy affects life on American Indian Reservations, and discuss what they can do to try to help change this.

Lesson Objectives

- SWBAT calculate the percentages of current COVID cases for each demographic population in Montana.
- SWBAT analyze data and identify discrepancies in COVID rates among ethnic groups.
◊ ENGAGE: (10-15 MIN) Review of percent
◊ EXPLORE: (10 MIN) Calculating percentages and complete through number six together with discussion of ideas.
◊ EXPLAIN: (5-10 MIN) As students begin to produce their ideas of why the percentages are so different, have them explain what they conclude may be reasons.
◊ ELABORATE: (15 MIN) Research for reasons why there are more cases and deaths of COVID for certain demographics.
◊ EVALUATE: (10 MIN) The students come back together as a class to discuss last page of their worksheet, their research and ideas o affect change.
Comparing COVID Cases Across Montana’s Demographic Populations

I believe that my IEFA lesson plan meets the qualifications for a social justice math lesson because I use real numbers. The numbers are pertinent to the area we live in and the issues that Montanans are dealing with right now. I think that it is important for students to realize that our American Indian population on and off reservations are dealing with disproportionate numbers of positive COVID cases and deaths. I highlight a couple of different websites that talk about this and some the reasons why. Bringing awareness can help to initiate change. I am open to all the ideas/solutions that the students produce. I am sure they will be creative and think of things I would not. If they do not suggest it, I will let them know that writing their government representatives is a great way to voice your opinion to those that have the power to a produce positive change with this tragic trend.
References

- https://www.youtube.com/watch?v=QVWA3Qg-Jow