

Before we get started:

Grab an index card at the front if you don't have one already.

Find the other people who have the same *symbol*
(not *number*) as you on their card,
sit together and introduce yourselves.

The Definition of a Mathematician

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Introductions

”In true dialogue, both sides are willing to change. We have to appreciate that truth can be received from outside of – not only within – our own group. If we do not believe that, entering into dialogue would be a waste of time. If we think we monopolize the truth and we still organize a dialogue, it is not authentic. We have to believe that by engaging in dialogue with other persons, we have the possibility of making a change within ourselves, that we can become deeper.”

~ Thich Nhat Hanh

Disclaimers

- What is now called Montréal, where we stand today, sits on the traditional territory of the Kanien'keha:ka. We recognize and respect the Kanien'keha:ka as the traditional custodians of the lands on which we meet today.
- I do not pretend to have all the answers to all the questions.
- I will use active learning, you are expected to participate as much as possible.
- Those might be difficult topics, feel free to step out if needed.
- We will start with some ground rules.

Ground rules for participation in this workshop

- Maintain a learner stance and remain open to new thinking
- Stay engaged
- Speak your truth
- Expect to experience discomfort at some level
- Accept and expect non-closure

Adapted from Glenn Singleton's *Courageous Conversations About Race*.

Definition of “mathematician”

Please find your group using the symbol on your card
(grab a card at the front if you don't have one)
and introduce yourself to your group.

**Then, list the first few things that come to mind
when you hear the word “mathematician.”**

Have the person holding the card with the number “1”
take notes on their card if possible.

Definitions influence... everything

Our mathematical theories are built on our definitions of the mathematical objects we want to study.

Our mathematical communities are built upon our definition of the word “mathematician.”

Get in your groups again and find a few ways in which the words you listed in the previous activity influence our mathematical community.

Have the person holding the card with the number “2” take notes on their card if possible.

Alternate definitions? Alternate communities?

If there are some things we want to change about our mathematical communities, we need to start at the root: our definition of “mathematician.”

What could be a new definition of “mathematician”?

What would you like to first come to mind when you hear the word “mathematician”?

Have the person holding the card with the number “3” take notes on their card if possible.

From the Cambridge Dictionary: “someone who studies, teaches, or is an expert in mathematics.”



How to be a
MATH PERSON:

Step 1:

Do math

(any type)

Step 2:

Be a person

More on definitions

We have two contending definitions of a mathematician:

- The “official” definition: the definition anyone would give if asked (from question / index card #3: someone who does math).
- The “operational” definition: the definition we use on a daily basis without thinking about it (from question / index card #1).

As a team, answer the following. Have the person holding the card with number “4” take notes.

What causes this difference between our “official” definition of a mathematician, and our “operational” definition of a mathematician?

There's an expression for this

The **Four I's of Oppression**: Ideological, Institutional, Interpersonal, and Internal (or Internalized).

Today, we discussed the *ideological* level:

- Any oppressive system has at its core the *idea* that one group is better than other groups. For this reason this group feels it has the right to control or dominate the other groups.
- The dominant group thinks of itself as more intelligent, harder working, more advanced, superior, etc.
- The opposite qualities are attributed to the other groups.

The Four I's of Oppression

We also discussed the *internal* level:

- The idea that a group might rightfully dominate over others is *internalized* by everyone in that culture or system, including those in the non-dominant group(s).
- This means people in that system come to believe the dominance of one group as normal, or natural, or as making sense.

Those ideas of dominance are often reinforced by *institutions* through laws, practices, rules, policy, etc. That's the *institutional* level of oppression.

If you have power in some institution, I encourage you to take a look at that institutions' practices and whether it might be oppressive.

There's also the *interpersonal* aspect of oppression in mathematics. That's when someone poses a direct act towards someone else, and that act is oppressive (whether the person intended that or not).

Recap

Let's take a moment to reflect on what we did together today. This work takes intellectual humility, open-mindedness and acceptance of different perspectives.

Take a quiet minute or two to yourself to think about this:

- What is something that you have a better understanding of now?
- What is something that you need to understand better for yourself, and how do you intend on doing so?
- What is something from today you will take back to your work, classroom, colleagues, department, or family?

When people in your group are ready, please share with them what you feel comfortable sharing from the above.

Take-aways

- We are humans doing math, not just mathematical brains doing math without thinking about anything else.
- Our biases, assumptions, stereotypes have an impact on us and our community, and on those who are not part of our community.
- The Four I's of Oppression. How they all interact and reinforce each other, and how they affect us.

Next Steps

- Next workshops? Some tools to try to adjust the culture, from engaging in critical conversations to practicing bystander intervention.
- I am a resource for students and faculty when it comes to issues of diversity, inclusion, equity and justice, so please come and talk to me about this!
- We are about to unveil an electronic suggestion box for the department, stay tuned!
- Please give me feedback using this link: <https://bit.ly/2SnV3n2>
- The slides from today will be posted on my website: rosaliebr.thescholar.com.

Thanks for participating!