



Breaking habits and building trust: Humanizing the process of gathering and using data for school improvement

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learning | **as unique** | as every student

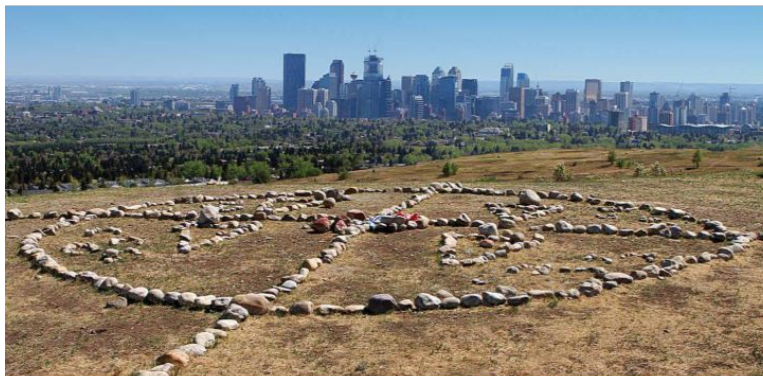


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Acknowledging the land where we gather

We would like to acknowledge the traditional territories and oral practices of the Blackfoot Nations, which includes the Siksika, the Piikani, and the Kainai. We also acknowledge the Tsuut'ina and Stoney Nakoda First Nations, the Métis Nation (Region 3), and all people who make their homes in the Treaty 7 region of Southern Alberta.



learning | [as unique](#) | as every student

Overview

Setting the stage

Stories of school and learning

Rehumanizing

Building Trust: Staff decision making

Breaking habits: Story as data collection





How do we support a generation of young people who care deeply about the Land, human rights, and their education?





Data dive – Getting curious

Part of a story: Literacy, Mathematics, Well-Being

- Math identity as an area of focus

How can we best utilize local, specific data (incremental growth) to support our school development plan goals for literacy, math, and well-being

How can we incorporate more student voice?

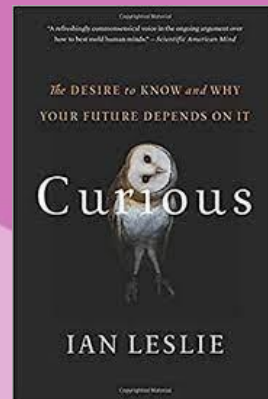
How are teachers feeling?





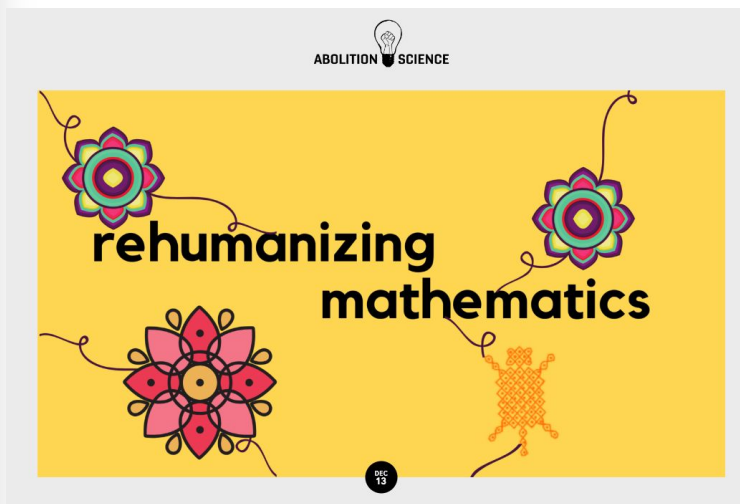
A school is a crucible of curiosity. It can imbue the fledgling desire to learn of young children with strength and sinew, or it can be the place where it is allowed to atrophy. If you're concerned about the role of curiosity in society, as I am, then you have a stake in the perennial debate over what schools are for. The fault line in these debates is this – should schools be places where adults transmit to children the academic knowledge that society deems valuable? Or places where children are allowed to follow their own curiosity, wherever it takes them?

-Ian Leslie, *Curious*





Rehumanizing mathematics | Dr. Rochelle Gutiérrez



If you want to radically reimagine something you don't start with the people it's working for and go have focus groups and ask them, "How would you improve it?" You go to the groups that aren't using it, you go to the groups that the system is failing, and you say, "What is limiting about this form of mathematics we're doing in school that's dehumanizing for people?" "What needs to be brought back?" "What are we missing?"



Rehumanizing

"Unlike equity, which can seem to represent a destination, rehumanizing is a verb; it reflects an ongoing process and requires constant vigilance to maintain and to evolve with contexts"



Attending to emotions – can we conjure more feelings of joy?

How can we gather students' stories?



Play, invent, express through data



Building Trust – Begins with reflection

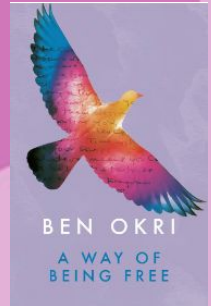
1. How do you feel about math?
2. What words come to mind when you think about math?
3. Who is learning math in my class and who is not, and why?
4. What is my expectation for each of my students in mathematics learning?
5. Do I use word problems that are familiar to my students?
6. What social and community issues am I integrating into mathematics curriculum and instruction?
7. How did each of my students do today?





We live by stories, we also live in them. One way or another we are living the stories planted in us early or along the way, or we are also living the stories we planted – knowingly or unknowingly – in ourselves. We live stories that either give our lives meaning or negate it with meaninglessness. If we change the stories we live by, quite possibly we change our lives.

-
Ben Okri, *A Way of Being Free*



An approach to data collection



Story is a portal through which a person enters the world and by which their experience is made personally meaningful

People shape their daily lives by stories of who they are, and who others are

Learning is developed through experience

Stories are future-oriented



Learning environment | Space for story



Practice listening sessions with students: What feedback do you have for me to make our school or classroom more equitable and inclusive.

Listening deeply and responsively will help us build relational capital and trust and shift the culture as we gather data.

The critical mindset at this stage is curiosity and thinking hard before coming to any conclusions.

What is going well for you in math right now?



Breaking habits

Moving from satellite data to street data – from provincial to local

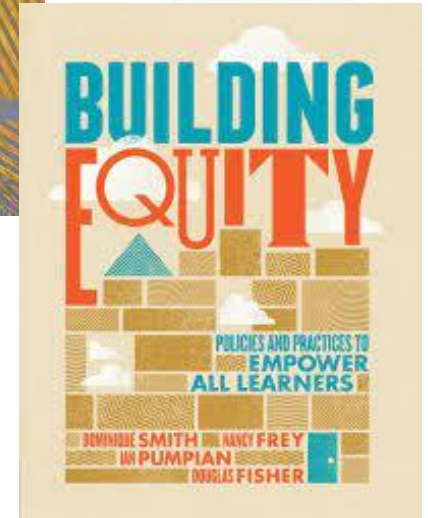
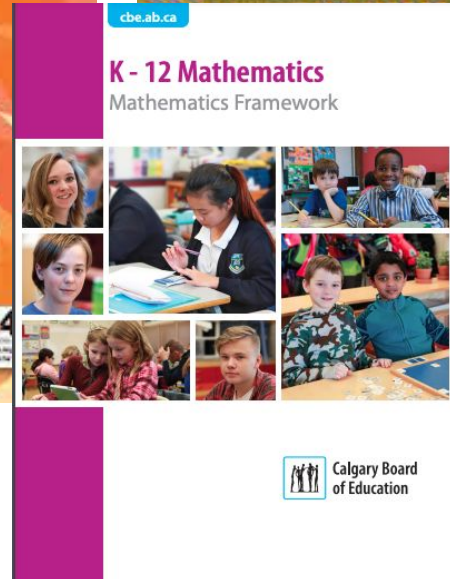
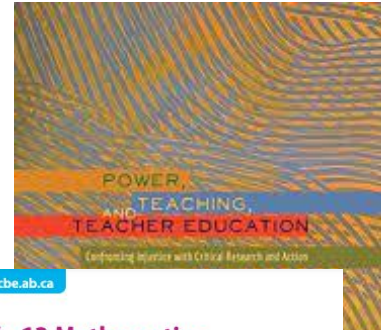
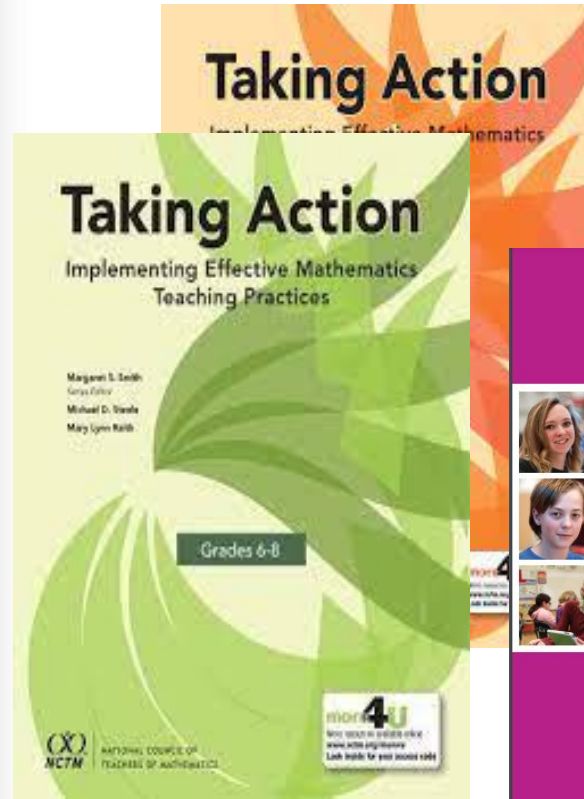
Permission to think differently

What counts as data?

- Student perception data
- Teacher perception data
- Leader perception data
- Common assessments designed by teachers



Drawing on the research



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How will we know there has been improvement and what specific data will tell us this?

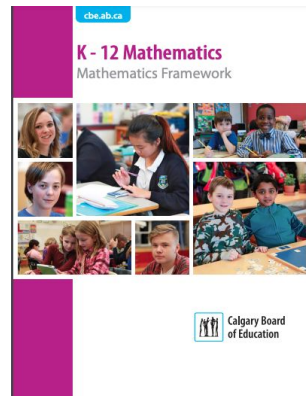
Data Collection Plan	Measures
<ul style="list-style-type: none">· create a year timeline of considerations for data collection· layout the week-by-week, month-by-month or other requirements for data collection by staff· consider where these data will be held and what, if any, data collection tools need to be developed/used in order to efficiently and effectively gather the required data.	<ul style="list-style-type: none">· What are the specific data source(s) that will show the summative evidence of improvement?· Consider how you will know if there has been improvement?· What particular data source(s) will tell you if learning has improved?· Measures column is comprised of the specific list of data sources. For example: teacher survey, student survey, report card results on a particular stem/outcome, teacher gradebook record for a particular outcome, leader perception.



Building Trust – Common assessments

These assessments are developed and administered in a given timeframe by teachers in a grade level / course or across grade levels / courses in a particular subject area to determine if students are mastering the intended learning outcomes.

Teachers analyze data collaboratively and plan next steps to ensure a continual focus on improving student learning.





Observations and Look Fors

From TEF	SJ Observation/Look For Tool for engagement in math	From Math Framework
<input type="checkbox"/> Requires engagement in productive collaboration with each other	<input type="checkbox"/> Are students collaborating with one another?	<i>Math Identity:</i> <i>Create an environment where students are doing most of the work of reasoning and making sense</i>
<input type="checkbox"/> Requires engagement with discipline and other experts	<input type="checkbox"/> Are math problems reflective of the students' identities? What and how?	<i>Support students in metacognition, self and peer assessment, goal setting</i>
<input type="checkbox"/> Real problems and issues (e.g. the golden ratio)	<input type="checkbox"/> Are students engaging in real problems and issues?	<i>Math environment</i> <i>Assessment-rich environment</i> <i>Use formative assessment to gather information on:</i> <ul style="list-style-type: none"> - Student understanding - Student mathematics identity
<input type="checkbox"/> Questions or ideas are of real concern and central to <ul style="list-style-type: none"> o the discipline o Broader community outside of school 	<input type="checkbox"/> Does the learning environment represent and appreciate diversity? (<u>what</u> does the classroom look like, sound like, feel like?)	<i>Math teaching practices</i> <i>Establish goals to focus learning</i>
<input type="checkbox"/> Formulate well-reasoned judgment and conclusions based on evidence with an examination of different viewpoints	<input type="checkbox"/> Is there a variety of texts used in math lessons?	<i>Math teaching practices</i> <i>Facilitate meaningful math discourse (what is our common language of math at SJ?)</i>
<input type="checkbox"/> Analyze assumptions	<input type="checkbox"/> Is there classroom discourse examining different viewpoints?	<i>Math teaching practices</i> <i>Facilitate meaningful math discourse (what is our common language of math at SJ?)</i>
<input type="checkbox"/> Discuss how things might be otherwise, e.g. supposition	<input type="checkbox"/> Are students making connections between and among concepts (how do you know?)	<i>Pose purposeful questions</i>
<input type="checkbox"/> Make connections between and among concepts	<input type="checkbox"/> Are students working on non-permanent surfaces	<i>Mathematical engagement</i>



Staff-based decision making: Observations and Look-Fors

Stanley Jones Observation/Look For checklist



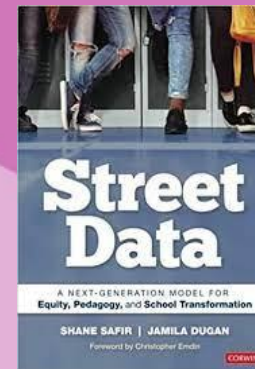
- Are students collaborating with one another?
- Are students working on non-permanent surfaces? manipulatives?
- Are math problems reflective of the students' identities?
- Are students engaging in real problems and issues?
- Does the learning environment represent and appreciate diversity?
- Are learning intentions clear and focused?
- Is there classroom discourse examining different viewpoints?
- Are students making connections between and among concepts?
- Does the environment and task represent multiple identities?





Seek root causes over quick fixes.

Shane Safir & Jamila Duggan, *Street data: The next generation model for equity, pedagogy, and school transformation.*





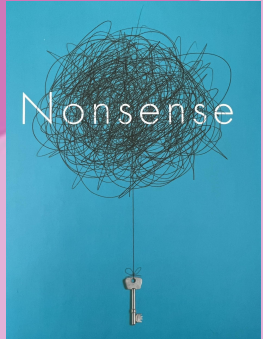
What does improvement mean?





In an increasingly complex, unpredictable world, what matters most isn't IQ, willpower, or confidence in what we know. It's how we deal with what we don't understand.

- Jamie Holmes, *Nonsense: The power of not knowing*





How do we support a generation of young people who care deeply about the Land, human rights, and their education?



Leadership actions

Engaging with system supports

Fostering curiosity

Professional Learning

- Equity, diversity, inclusion
- Rehumanizing

Practice of reflection

Building capacity

Staff-based decision making

- Look-fors
- Plan for data collection and measures

PLCs

- Common assessments

Listening sessions

- What are the students saying?

Engaging community and families





How it changed practice

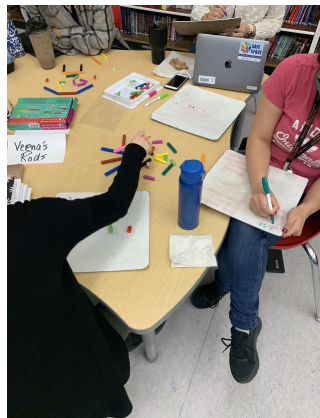
Use of math manipulatives

Stronger assessment practices

More mathematical engagement

Learning through story

Streamlined work in the school





Inequity in education is both so ubiquitous and so persistent that we have a nickname for it, the achievement gap, our shorthand for the disparity on educational measures between groups of students.

- Leigh Patel, *Decolonizing educational research: From ownership to answerability*



Thank you!

References

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Leslie, I. (2014). *Curious: The desire to know and why your life depends on it*. Anansi.

Okri, B. (2014). *A way of being free*. Phoenix House.

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