



Norway AND Canada:

An international
partnership pursuing
equity in mathematics
education



NORCAN

ONTARIO'S LEARNING JOURNEY



A report of the NORCAN Ontario partners



Monsignor John Pereyma
Catholic Secondary School





Dedication

This report is dedicated to Paul Bisson. His unwavering commitment to students and educators lives on in the hearts of all NORCAN participants.

NORCAN (Norway-Canada) Partnership

How can an international network of schools and educators committed to mindful leadership help to identify obstacles to students' mathematical learning, and then develop strategies for attaining success?

From 2014 – 2018, students, teachers and administrators from nine schools in Norway, Alberta and Ontario joined together to focus on how they could enhance excellence through equity in the subject area of mathematics.

This collaboration was supported by teacher federations in all three jurisdictions and, uniquely in Ontario, via a partnership between the Ontario Teachers' Federation (OTF) and Ontario Ministry of Education.

Over the course of four years, educators opened the doors to their schools and classrooms and, by doing so, opened their hearts and minds to the wit, wisdom and wonder of their students, their colleagues and themselves. While all professional development is ultimately about students, NORCAN enabled students themselves to be directly involved in learning, sharing and teaching alongside their teachers, principals and school board leaders.

Although NORCAN impacted many schools within Ontario and beyond, throughout this document you will hear the voices of students and educators primarily from the lead Ontario schools:

- Monsignor John Pereyma Catholic Secondary School in Oshawa (Durham Catholic DSB)
- Tecumseh Vista Academy in Windsor (Greater Essex County DSB)

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I took something away from every person I encountered...it is an experience I will hold with me forever.

(Student)



In both schools, involvement in NORCAN was an extension of their prior work in the Teacher Learning and Leadership Program (TLLP). Using Appreciative Inquiry, team members reflected on the successes, challenges and impact that their participation in NORCAN had on themselves, their school, their school district and beyond.

The following key learning themes have emerged:



Trust + Student Voice + Educator Agency =



IMPACT



**Personal Growth | Professional Transformation
| Innovative Teaching & Learning**

TRUST

Often, when we adapt or adopt an initiative or program, we try to replicate a structure without attending fully to the complexities of relationships, which enable the structure to actually be effective.



Partnering nine schools to focus on equity of outcomes in Math (a structure) was a way in to deeper conversations about what truly impacts the well-being and learning of students and educators alike (relationships).

Although tremendous learning occurred at the annual formal summits that were an integrated part of NORCAN, much of the learning was situated in the place that matters most – the classroom. By intentionally de-privatizing classroom practice, trust was built between students, teachers and school leaders.

This learning design was integral to open sharing about the messiness and complexity of learning and built a shared sense between schools that we are all on this messy but incredibly rewarding learning journey together.



“

The NORCAN project leaders put a great deal of trust in the teachers involved and allowed us to explore the learning that would be most impactful to the students that we had in front of us in our classrooms.

(Teacher)



The NORCAN partnership was predicated on an openness to new ideas and an explicit trust by all participants that taking risks and trying something new was both encouraged and valued. Students, teachers and administrators alike felt liberated by working in an environment where they could learn from their mistakes without fear that they would be penalized for them.

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Through NORCAN, my daughter formed trusting relationships with her teachers, and she has expressed how much she has valued that.

(Parent)



STUDENT VOICE

What NORCAN surfaced was a profound question:

How can we have learning for educators and not involve students?



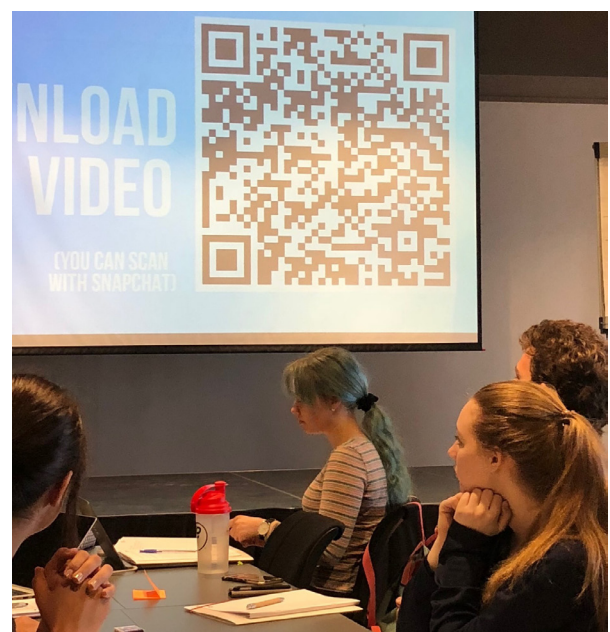
The involvement of students in NORCAN was critical. From the outset their voices served as a centrepiece for reflection and change.



“ I want to become a teacher and having this experience only amplified that thought...student voice and involvement is something I will incorporate into my teaching in the future.

(Student)

“This is my Voice” – a video made by NORCAN students – is an example of how students sharing their lived experiences and real-world challenges was integral to the reflection and growth of the educators in our Ontario schools.



“

What I learned about student voice and how important it is to listen to what students have to say, and how important what they have to say was, changed my entire teaching practice.

(Teacher)



For the students themselves, participation in NORCAN heightened their awareness that their teachers also encountered similar struggles and harboured many of the same hopes for making classroom experiences meaningful.

Asking students about how they would improve their education is the easy part – the hard part is acting on what the students have to say.

This was the power of NORCAN. **Ideas suggested by students led to actual changes in their classrooms.**



“

Through NORCAN, we have discovered the profound power of student voice, which is inspiring, liberating, and pushes all educators to ask questions and reflect that learning means to continually wonder.

(Principal)



EDUCATOR AGENCY

Educator agency has been defined as the capacity of educators “to act purposefully and constructively to direct their professional growth and contribute to the growth of their colleagues.” (Learning Forward, 2016). In NORCAN, educator agency was stimulated and supported by teachers and administrators being exposed to new and different practices, de-privatizing their own learning and constantly sharing lessons learned along the way.



The Magic of the Overview Effect

We went to the moon and as a result saw earth differently. Norway and Alberta aren't quite as far away as the moon but being part of NORCAN not only served to inspire student voice, it also fostered agency in participating teachers and school leaders.

This phenomenon, known as the “overview effect”, meant time spent in Norwegian and Albertan classrooms served as a provocation for change in our Ontario schools. [This reflection from Monsignor John Pereyma](#) highlights the impact of their first visit to Norway from small things like reducing bells and classroom interruptions, to large things like “full-day Fridays” where students engaged in project-based learning across disciplines.



“Prior to NORCAN I felt like I was working within a silo – the silo of my own classroom. Because of NORCAN, I am now part of a wide network of educators who are all learning together and supporting each other in implementing new pedagogical practices.

(Teacher)

“The guiding principle from NORCAN was the “overview effect” which challenged all educators to step outside their comfort zone and ask why?

(Principal)

Windsor isn't the moon either, but when Tecumseh Vista Academy hosted students and educators from Norway and Alberta, they began to see their own work differently.

“

The iterative process of questioning, researching, trying something new, assessing outcomes, reflecting, adjusting the question and moving through the cycle repeatedly, demonstrated to the [NORCAN] teachers that professional learning is a continual journey.

(Researchers Sharon Alexander & Carol Campbell)

Seeing themselves through the eyes of their NORCAN colleagues was like looking in a mirror that celebrated and elevated the work they were already engaged in. The NORCAN visit to TVA directly resulted in the creation of a shared document *Empowering Student Voice and Agency Through Math Council*.

Dennis Shirley has observed that one of the major strengths of networked learning communities is that “by exposing teachers to novel practices in different settings, they will want to probe more deeply into improving their teaching.” The feeling of being connected across schools and across jurisdictions empowered Ontario teachers and school leaders to continue to build collaborative learning networks within their own schools.

“

My experience during the NORCAN project has completely changed my teaching practices as well as my relationship with my students.

(Teacher)



The Power of Learning Out Loud

Educators learning together and from each other was another important aspect of NORCAN. By making their thinking public – by “learning out loud” – NORCAN educators simultaneously extended their own practice, while learning how to teach others about their practice. And in so doing, they developed and grew as leaders in their areas of expertise.



By engaging in constant deep questioning of their own and each other's practices, by conversing in an ongoing way through face-to-face and electronic meeting opportunities, and by motivating and encouraging each other to construct and de-construct new practices, NORCAN educators grew their teaching and assessment repertoires exponentially.

Bountiful Sharing of Learning

From the get-go, NORCAN educators shared their evidence eloquently and broadly. Several profound changes that occurred in the Ontario schools spread rapidly across their districts and also to Alberta and Norway.

These included:

- [School Math/Learning Councils](#)
- Students leading learning for teachers
- Full-day project-based learning, based on real-life situations
- Innovative assessment practices



IMPACT:

PERSONAL GROWTH
PROFESSIONAL TRANSFORMATION
INNOVATIVE TEACHING
& LEARNING



Agency occurs when you feel like you have a voice – empowerment occurs when your voice is heard and results in positive change.

As a direct result of the trust, voice and agency that students and educators experienced in NORCAN, a plethora of innovative teaching and learning practices emerged. Additionally, the trust, voice and agency that students and educators experienced resulted in both personal and professional transformation.

“

The thinking and learning that has come from the exposure to these opportunities and dialogues has significantly impacted practice with regards to instruction, but even more importantly with regards to the passionate pursuit of collaborative professional learning that prioritizes student voice. These changes have started in the context of a single school and grown to include all schools in our board.

(Superintendent)



Participants collaboratively constructed answers to powerful questions:

- Who am I as an educator and/or learner?
- What are my hopes, wishes and dreams for learning?
- How can I live and share these beliefs in my classroom, school, school district and beyond?

The time for connection, reflection, collaboration and action that NORCAN provided enabled students and educators to think deeply and collectively work towards improving learning for all. Although the formal project is now over – our learning never ends.





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As a parent, the best experience was watching my daughter grow as a learner, and a leader throughout this entire project.

(Parent)

“

People have told me that ever since NORCAN officially ended, I've been a transformed person, someone who is willing to take risks, enjoy life to the fullest and be a leader in the school.

(Student)

“

This experience will forever live on in the way it impacted me and how I view learning.

(Student)

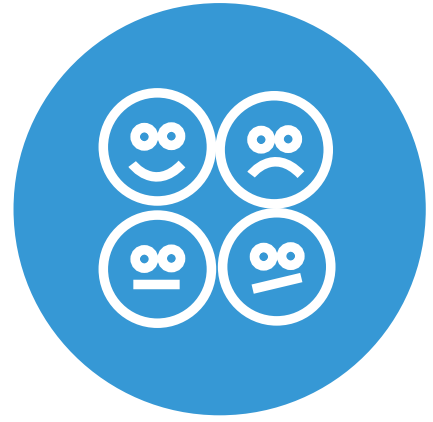
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NORCAN has dramatically impacted the lives of the students in my school and in my board. Students who were previously disengaged in our school community and who felt unheard in their educational experience are now leaders in their buildings, across our board and across our province.

(Teacher)

NORCAN Voices

Using Appreciative Inquiry, students, parents, teachers and school leaders reflected on the successes, challenges and impact their participation in NORCAN had on themselves, their school, their school district and beyond. This is what they said:



TRUST



“ I learned that students are similar no matter their background. They are searching for a learning environment that is real, that challenges them, that is applicable and relevant to their lives, and is built around a core of strong relationships and trust with the teachers in their lives.

(Teacher)

“ I felt part of a welcoming, comforting family.

(Student)

“ I was so inspired to see the strong bridge of trust between teachers and students at Ranvik Lower Secondary School. I learned that this is something that we can strive for right here at Tecumseh Vista. When a bridge of trust is built, it can ultimately change learning.

(Student)

“ I am grateful to have been given the opportunity to learn from such a diverse, knowledgeable and caring group of educators. The relationships I have built and the expanse of the learning I have done through my participation in this project was more than I could have ever imagined.

(Teacher)

“ When students feel that sense of emotional support and belonging, their learning can be dramatically impacted... ultimately, it will allow them to realize that they have a voice and their voice has an impact within their learning environment.

(Student)

STUDENT VOICE

“

I believe it gives students a sense of purpose and something to really contribute to and feel like they're making a difference.

(Student)



“

Through this process we have discovered the profound power of student voice which is inspiring, liberating and pushes all educators to ask questions and realize that learning means to continually wonder.

(Principal)

“

Math Council was the best experience from NORCAN as I believe it was the first time students, teachers and administrators in our Board sat eye to eye, knee to knee as equals discussing matters beyond the social constructs of school.

(Teacher)

“

The NORCAN project has made it so that student voice is a priority at our school and within our board.

(Teacher)

“

I believe that overall, the NORCAN project was the catalyst our school community needed to begin our journey of transforming our learning environment into one that strongly encouraged student voice and leadership.

(Student)

“

I learned how important student voice is, and that by speaking up and advocating for what we believe in, we can truly make a difference. I will continue to use my voice in the future, to advocate for myself, for causes that I believe in, and for others who cannot advocate for themselves.

(Student)

“

The changes we are making are in response to student voice and student voice is a direct result of the NORCAN project.

(Teacher)

EDUCATOR AGENCY

“

I was able to see the great aspects of Ontario education and I was also able to see and bring back some suggestions to make it even better. I feel that without the NORCAN project, my school would not where it is today.

(Student)

“

Collaboration and sharing amongst educators is huge. It is very hard to make changes when you feel like you are the only one trying or struggling. When you have others to plan with, experience the good/bad and bounce ideas for change, teaching changes for the better.

(Teacher)

“

It was an amazing opportunity to partner with schools across the world to share our ideas and learn from one another. It not only gives us a chance to find out about new ideas, but it helps us to better appreciate our own learning environment when we see that other schools are fascinated about what we do.

(Student)

“

I have become a teacher leader because of the NORCAN project.

(Teacher)



“

NORCAN has changed the way that professional development occurs in our board. Teachers now have a voice in the type of professional development that they undertake, and that professional development is rooted in authentic needs presented in the classroom.

(Teacher)

“

My perception has changed. I used to think it was just a job. I had no idea my career would evolve so much and that there would be so much growth and collaboration. I couldn't have imagined a teacher being invited in to work with Senior Officers in order to inform policy and programming.

(Teacher)

IMPACT:

PERSONAL GROWTH

PROFESSIONAL TRANSFORMATION

INNOVATIVE TEACHING

& LEARNING

“

Math council is recognized in other schools across the district (and beyond) as a structure for empowering students to share their voice and be heard by their educators.

(Teacher)



“

As we move forward, we see that although NORCAN began with only one school in our district, it has created a powerful and impactful agent for change that is driving learning and pedagogy throughout the entire district.

(Principal)

“

The NORCAN experience provided me with the opportunity to grow both as a student AND a person. It changed my perspective: I started as a learner, grew as a peer mentor, and became a leader.

(Student)

“

NORCAN was a life changing opportunity that gave my daughter confidence, sensitivity, independence, and of course leadership.

(Parent)

“

NORCAN has been an incredible gift to our learning community; I think that the resources, the collaboration and the promotion of positivity has been invaluable....it was a great gift to my practice.

(Teacher)

“

NORCAN opened my eyes to how learning differs from one place to another and it inspired me to be the change in my school.

(Student)

A faded background image showing the Canadian flag (red and white with a maple leaf) and the Norwegian flag (red, white, and blue) waving on flagpoles against a light blue sky.

Learn More

- [NORCAN Ning](#)
- [Pereyma NORCAN Site](#)
- [Tecumseh Vista's NORCAN Journey](#)
- [Durham Catholic DSB Video Reflections](#)
from [Students](#) | [Teachers](#) | [Principals](#) | [Parents](#)

References

Campbell, C. and Alexander, S. (2019). "Teacher Identity, Professional Learning and Leadership: An Ontario Case Study" in Cordingly, P., Crisp, B., Johns, P., Perry, T., Campbell, C., Bell, M., & Bradbury, M. *Constructing Teachers' Professional Identities*. Education International.

Learning Forward and the National Commission on Teaching & America's Future. (2016). *Moving from Compliance to Agency: What Teachers Need to Make Professional Learning Work*. Retrieved from: <https://learningforward.org/docs/default-source/pdf/teacheragencyfinal.pdf>.

Shirley, D., & MacDonald, E. (2016) *The Mindful Teacher* (2nd edition). New York: Teachers College Press.

