



Key Takeaways

IDEAS Summit 2023: Key Takeaways

In October 2023, Actua hosted its third annual IDEAS (Inclusion, Diversity, Equity, and Access in STEM) Summit, a pivotal three-day virtual event that brought together educators from across Canada. The primary focus of the summit was to explore ways of enhancing Equity, Diversity, and Inclusion (EDI) in STEM education and provide valuable insights for Canadian educators striving to create more inclusive STEM classrooms. IDEAS welcomed educators, experts and thought leaders to share their individual experiences and collectively build a bridge toward a more inclusive and equitable STEM education landscape.

“The IDEAS Summit is a critical space designed to facilitate the journey of learning and unlearning. It’s an opportunity to not only express challenges being faced in STEM education, but also to discover new ideas and perspectives, and to build a community in order to tackle those challenges.” - Abbey Ramdeo, Education Specialist, Equity, Diversity, Inclusion

This blog delves into the key takeaways from each day, emphasizing the power of diversity, belonging and equity in Canadian STEM education.

Day 1: Exploring Indigenous Knowledge and STEM Education Connections

The first day of the IDEAS Summit underscored the critical importance of creating safe learning environments for Black, Indigenous and racialized learners. [Dr. James Makokis](#), the opening keynote speaker at the IDEAS Summit, set the tone for the event by emphasizing the importance of advocating for Indigenous students in STEM education. He highlighted the significance of representation and stressed the need to create a safe and inclusive learning environment, particularly in spaces that may be structurally violent. “It is not enough to just admit and accept Indigenous students into STEM. They need mentorship, support and ensure every one of them graduates”, he says.

Dr. Makokis underscored that educators must actively address this violence and believe Indigenous and BIPOC learners when they report experiencing harm, further emphasizing the importance of correcting colleagues who perpetuate harm, whether knowingly or unknowingly.

The day also focused on the significance of fostering confidence through identity and culture with guidance that included:

- Encouraging educators to connect intentionally with students' identities, recentering language and embracing dialects as assets rather than obstacles to learning.
- Using storytelling as a dynamic tool for empowering students to make change.
- Harnessing culturally relevant topics like astronomy, climate change and relationships to the land to develop deeper connections with students.
- Additionally, land-based learning practices were highlighted, challenging misconceptions and advocating for ongoing consultations on Indigenous perspectives. This underscores the imperative of integrating Indigenous communities holistically into all levels of education.

Day 2: Belonging and Inclusion in STEM Education

The second day of the summit delved into improving students' sense of belonging in STEM. The summit's day 2 keynote, [Dr. Katie Novak](#) explored the transformative potential of [Universal Design for Learning \(UDL\)](#) in shifting the workload to students in STEM fields. She stressed that education should be about growth rather than perfection, highlighting that every student, regardless of their background, can work towards mastering grade-level standards. Dr. Novak emphasized the need for different systems, recognizing that the existing educational structure may not cater to every student's unique needs. Her approach echoed the idea that each student should be embraced as they are, with the belief that they can be successful.

Some key takeaways from sessions included:

- Actua's National Program Manager, Jennifer Ladipo, Cassandra Abraham from the University of Toronto and Cressana Williams-Massey from Queen's University led an important panel emphasizing the critical importance of diverse role models in education, particularly for Black youth. The session called for educators to engage in self-reflection by questioning their own biases and staying informed to re-evaluate situations before taking action. Additionally, it advocated for involving parents and the community in discussions to create inclusive and welcoming educational spaces.
- The importance of technology in enhancing student learning and the significance of providing support to students with varying abilities.
- Advocacy for dismantling traditional education structures that can be harmful to marginalized communities and adopting inclusive teaching methods in mathematics education.



Day 3: Equitable Digital Skills Pedagogy

The final day of the IDEAS Summit underlined the significance of making STEM education - particularly with a focus on digital skills building - more accessible and responsive to different communities and cultures.

Both of our day 3 keynotes explored identity and intersectionality in STEM. [Jenni Gibbons](#), an Astronaut at the [Canadian Space Agency](#), delivered an inspiring keynote, urging educators to engage young minds in engineering through creativity and problem-solving, ensuring that diverse youth feel welcomed and valued in the field. She also discussed imposter syndrome and encouraged continuous, incremental progress as a way to dispel the myth that significant leaps are necessary for success. Our closing keynote, Dr. Carol-Ann Burke with the Ontario Institute for Studies in Education, used art and research to build further on the opening keynote and encouraged educators to think about intersectionality and gatekeeping to challenge societal narratives about who can participate in STEM.

During the skills-building workshops, educators learned how coding can empower students to not only consume, but also to create and collaborate with technology in a culturally relevant context by playing with different online platforms. Topics included:

- project-based activities rooted in empathy through digital storytelling;
- connecting digital skills to math courses and art; emerging technology (focusing on machine learning as well as facial sensing and detection technology), with discussions on bias.

A Path to Inclusive STEM: Lessons from the Actua IDEAS Summit

The Actua IDEAS Summit in 2023 provided Canadian educators with a wealth of insights to foster Equity, Diversity and Inclusion in STEM education. By creating safe spaces, fostering confidence through identity, making connections, and addressing systemic barriers, educators can create an inclusive environment where all students can thrive.

- **Foster Confidence Through Identity:** intentionally learn about and connect with student identities, and celebrate individuality.
- **Make Connections:** grow your networks and establish meaningful relationships with local community members, with a purposeful focus on Indigenous communities. It will take time to build relationships and trust, and must be ongoing.
- **Mentorship and Guidance:** create secure environments where students have access to mentors and role models who can guide and inspire them. Mentorship is crucial for youth to succeed in STEM and to believe in their potential.

These key takeaways highlight the significance of engaging with diverse communities, embracing cultural differences, and removing systemic barriers to education. Educators who incorporate these insights into their classrooms can help build a more inclusive and equitable STEM education system in Canada, ensuring that all students have the opportunity to succeed and thrive in the STEM fields.



Learn More

Interested in the schedule and speakers? Visit ideas.actua.ca. To learn more about the other insights shared at IDEAS, check out what participants had to say on Twitter, using [#IDEASxActua](https://twitter.com/IDEASxActua).

