



The Brain Builders Lab was a joint initiative of the Canadian Centre on Substance Use and Addiction and the Alberta Family Wellness Initiative. Its aim was to move Brain Story science, which links childhood trauma to later health outcomes, into action. Between 2019 and 2021, participants in the Brain Builders Lab undertook projects to spread and embed Brain Story science in their communities. This case study along with the others in the series provides practical advice on how to develop and implement projects, along with project impacts and lessons learned.

Bayview Glen Independent School

Brain Builders Lab Case Study

Project Team

- Samantha Yarde, Registered Early Childhood Educator, Bayview Glen Independent School

Location

- Toronto, Ontario

Introduction and Project Goals

Bayview Glen Independent School provides education from preschool through to Grade 12. As an educator, Samantha Yarde had already learned about brain science through her early childhood education and child development studies, but deepened her understanding of how experiences in childhood influence child, youth and adult outcomes through the Brain Story Certification Course from the ALBERTA Family Wellness Initiative's. She recognized that there was very little understanding of brain development and its role in learning, health and well-being among professionals in the education sector, and saw the relevance of this information for teachers as well as the children, youth and families at her school. Seeing the potential of this knowledge to benefit the entire school, Samantha's goal in joining the Brain Builders Lab was:

- To spread and embed Brain Story science within the school's teaching staff, programs and classrooms.

Knowledge Mobilization Activities

Building staff awareness: Samantha had leadership support for her project right from the start, but recognized that without broader engagement and buy-in from school staff, she might find herself "swimming against the current." She knew that educators might struggle to see the relevance of Brain Story science to their work and to adult outcomes. To address this issue, she created a presentation to share basic brain science concepts in a way that would be engaging and relevant to her audience. She emphasized the importance of educators in contributing not just to learning outcomes, but also to health and well-being as students mature into adulthood.



Tailored knowledge-building: Samantha followed up her initial presentation with a questionnaire to identify themes from the Brain Story that were most relevant to staff. She wanted to include the staff, her key target group, in determining topics before developing resources. Based on this feedback, she developed workshops on social and emotional learning and the importance of adult relationships in supporting the learning process. She had tailored the information for teachers in preschool to Grade 5, using a combination of materials from the Alberta Family Wellness Initiative and the [Shanker Self-Reg® Framework](#). She intended to embark on a second phase to target teachers in grades 6–12 when the pandemic hit in the spring of 2020. Despite this, Samantha was able to quickly pivot to online delivery and make her workshops available virtually.

Samantha delivered six workshops in the first year of her project, and a six-part workshop focused on self-care and trauma-informed practice in the second year. All activities in the workshops have focused on understanding brain science and the role of teachers in supporting the development of skills and abilities in their students.

Outcomes and Impact

Shifting mental models: Feedback from the workshops indicated that staff found the information useful not just for their work but also in their personal lives. Many staff members are beginning to reframe their understanding of students' classroom behaviours, and brain science concepts are starting to permeate discussions about classroom issues. Attitudes and beliefs among teachers about where student behaviours stem from have certainly shifted, and a greater understanding of the relevance of social-emotional learning on student outcomes has begun to emerge.

“I think I am more aware of reasons that could be causing an outward behaviour and try to meet and understand the child's need instead of just labelling them as inattentive.”
- Workshop attendee

Organizational change: School leadership has begun to place more emphasis on the importance of social-emotional learning in students. Bayview Glen has recently purchased and implemented the [Second Step® Program](#) to support social-emotional learning and Samantha has been asked to sit on this committee. This shift in culture and allocation of school resources has the potential to create significant impacts in teacher practices and student outcomes as it continues to unfold.

Professional advancement: One unexpected outcome has been that Samantha has enhanced her own professional reputation as an expert in this area, and is being approached by staff for further insight. In fact, her Assistant Head of School has encouraged her to pursue her master's degree.

Lessons Learned and Next Steps

Impact starts with personal growth. The greatest gift that the Brain Builders Lab has afforded Samantha and what she counts as her biggest success is the personal and professional growth she has experienced because of taking on this project. Project implementation helped her develop new skills and expand her comfort zone, such as learning how to educate and engage adults rather than children, and built her confidence to present to colleagues and organizational leaders. Her experience with the Brain Builders Lab helped her feel ready to take on these new challenges.

“You have made me see and understand the human brain, social and emotional behaviour in a different light. Not only as an educator but as a mom.”
- Workshop attendee

A top-down, bottom-up approach makes getting buy-in to apply the science easier. Some of the key conditions for success were gaining leadership support for her project before starting and then



inviting the staff into the process early on to provide their input on the project's goals and direction. While the pandemic slowed her work down it also helped produce an environment of receptivity for the science since it helped staff understand how stress, including that from the pandemic, impacts student behaviour, and how stress impacts educators' own reactions in the classroom.

Plan for limitations in the target audience. Samantha's biggest challenge was the limited time staff had available to devote to the issue. However, despite the time constraints, staff reported some shifting attitudes and beliefs. Samantha also wished she had been able to gather more information on how brain science was being applied. Surveys distributed to capture this information did not get a lot of responses, which could be a focus of future work.

Samantha plans to continue providing workshops whenever possible, and to advance her professional development to bring more information and practical strategies to future workshops. On a personal note, she has built her [own website](#) dedicated to sharing her knowledge on supporting healthy brain development. She plans to remain a strong champion for the work at Bayview Glen Independent School and would like to expand this approach to other schools in future.

Resources

- CCSA impact video: [Application of Concepts in the Education Sector \(K-12\)](#)

