

# The Daily Gleaner

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By Brian McCain

### Empowering Students Yields Results

The Gaia Project is entering its second full year of programs in New Brunswick schools this fall. Students in nearly 30 elementary, middle and high schools around the province are starting to investigate the environmental impact of the buildings they spend most of their days in, and find ways to make them more sustainable from an environmental, economic and social standpoint.

It's easy to look at this as simply an environmental project – but we have spent a lot of time working on ensuring that the projects are an educationally rigorous opportunity for students – and it's fascinating to watch the results. Two main principles are at the core of all of our projects to ensure this happens.

The first is making data-informed decisions – ensuring that every action or solution students propose is backed up by data that the students themselves have collected and analysed. We try and shift the focus away from simple data collection to data comprehension.

The second is looking at the entire lifecycle environmental, social and economic costs and benefits of any proposed solution – a total sustainability approach. Replacing a vending machine with a new, smaller, more energy efficient one may seem like a good idea at first – but what about all the energy that went into building the new machine and landfilling a perfectly functioning unit? These are difficult and thought provoking questions that students set out to explore.

These kind of projects differ from a conventional classroom in that the teacher no longer teaches, but instead facilitates and sets a general course. The students are in charge of how they meet their goals by setting timelines, establishing responsibilities, collecting and interpreting data, and presenting and implementing results.

When we started, I thought we would see students find solutions that I could have predicted before the course started – but that hasn't been the case. When given the opportunity, students can be exceptional outside-the-box thinkers, and look at traditional problems from a different perspective.

I'm always having to reassure students who bring up the question: "Surely someone must have thought of this?"; with the response: "Not if they haven't looked at it this way before".

Along the way, we, and the fantastic teachers we have the privilege of working with, have learned many lessons from our students. With projects like this, we need to focus on the learning process, not the end result. The way students plan, work together, collect and analyze data is a much better indicator of future success than the result they might find at the end. Our assessment needs to reflect that. We need to make the projects real and meaningful to students, so that they know that they can have a real impact. We achieve this by having

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students present to the Director of Facilities, or Finance at the District level. This brings a level of importance to the work they are doing and the findings that result.

The response from students has been phenomenal. One high-flying student who came in on a day off to present her findings to over 200 teachers (because she wanted to!), told them: "this is the hardest, and best course I've ever taken in my school career". Another student at the same session, who described himself as someone who struggles with school, said: "the change in learning style meant that I was actually able to contribute as much, if not more, than any other student". And finally, my favourite quote: "This is the most I've seen my buddy come to class in the 13 years we have gone to school together." Now THAT is progress!

*Brian McCain is Executive Director of The Gaia Project, a New Brunswick based non-profit, charitable organization focusing on project based sustainability education. If you'd like to support these efforts, please visit [www.thegaiaproject.ca](http://www.thegaiaproject.ca) or call 1-877-442-4136.*